



MAGISTER MANAJEMEN



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ISCRBM 2021

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**"DRIVING SUSTAINABLE BUSINESS
THROUGH INNOVATION"**

Jakarta, December 18th 2021



PROGRAM STUDI
MAGISTER MANAJEMEN

Prof. Wahjudi Prokorsa



MAGISTER MANAJEMEN



PROCEEDINGS OF
**THE 5th INTERNATIONAL SEMINAR OF
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(ISCRBM 2021)**

“Driving Sustainable Business Through Innovation”

Convened by
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Faculty of Economics and Business Universitas Indonesia
In association with
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FOREWORD

Assalamu'alaikum Wr Wb
Greetings from MM FEB UI

We thank God Almighty for completing the Proceedings Publication published by the Master of Management Study Program, Faculty of Economics and Business, University of Indonesia (MM FEB UI). This proceeding is a collection of papers presented in the International Seminar Conference of Research on Business and Management (ISCRBM) 2021 from the Indonesian Master in Management Program Alliance (APMMI) with the theme Driving Sustainable Business Through Innovation. APMMI plays a role as an institution to provide guidelines and as the best education provider from Master of Management to improve the education quality of MM in Indonesia. One of the efforts to support the academic contribution in higher education, APMMI is organizing an “International Conference,” which can be a forum for the academics to deliver their research and widen networking with other leading universities globally. This year, the Master of Management Faculty of Economics and Business Universitas Indonesia hosts the 5th ISCRBM.

The aims of this conference were increasing contribution from Indonesia in developing knowledge at the international level by publishing scientific research with an international standard of peer-reviewed process, delivering their real contribution within a talent management context, both in industry and government levels. And last but not least, to become a forum for knowledge improvement and research capacity for the academics from the material presentation of prominent scholars who are acknowledged for their expertise at the international level.

This conference was attended by 130 students from 17 universities from APMMI members spread throughout Indonesia and was held in Jakarta on December 18th, 2021. This event is a forum for educators, researchers, educational and non-educational observers to discuss business studies on procedures and guidelines for writing and publishing scientific articles and increase cooperation among participants.

Finally, I wish to express my gratitude to all delegates for their full cooperation and contribution in organizing this conference so that it is carried out well. The appreciation is mainly to the persons in APMMI and MM FEB UI, Head of the Master of Management from APMMI member universities, CRC Press Taylor Francis, and all committees who have

helped organize this seminar. We realize that there are still many shortcomings, inconveniences, and mistakes in organizing this seminar. Therefore, we humbly ask the sincerity of you, Ladies and Gentlemen, the participants, to forgive us. I wish this could be a very fruitful and productive conference.

Thank You

Wassalamu'alaikum Wr Wb

Chairman of APMMI

Director of MM-MBA FEB UI

Prof. Rofikoh Rokhim, Ph.D.

LIST OF CONTENTS

The Psychological Impact of Pricing Flash Sale and Free Shipping Policy on Perceived Value and Purchase Intention Towards the Sales of Beauty Product at Shopee Platform <i>A. R. Cahyanti & I. Salehudin</i>	1
Factors Determining Purchase Intention and Purchase Behavior of Green Product <i>A. D. Achmad & E. Yuliati</i>	5
Impact of Organizational Ambidexterity on the Performance of Tourism SMEs in Indonesia Through Strategic Renewal <i>A.A Gasong & Y. Nasution</i>	9
The Analysis of Electronic Word of Mouth (E-WOM) Towards CBBE: A Study on Maybelline Brand <i>A. Pramesti & K. Adiwijaya</i>	13
The Role of Corporate Social Responsibility (CSR) and CSR Internal Communications in Predicting Employee Engagement in Indonesia <i>A. Adiputri & F. Martdianty</i>	17
The Influence of Brand-Cause Fit on Forwarding Intention and Purchase Intention: The Study between Low Fit and High Fit Femvertising <i>A. Aretha & T. E. Balqiah</i>	21
The Mediating Effect of Organizational Meaningfulness and Time Pressure on the Relationship Between Work From Home and Work-Life Conflict <i>A. N. Shadrina & P. M. Desiana</i>	25
Traveling in Pandemic: An Analysis from the Perspective of Protection Motivation Theory <i>A.I. Kumalasari & T.E. Balqiah</i>	29
The Effects of Transformational Leadership on Self-Leadership and Perceived Career Success in Banking Sector <i>A. Pratiwi & E.S. Pusparini</i>	33
Impact of Youtuber Endorsement, Country-of-Origin Figure, and Purchase Intention to Brand Attitude and Credibility of Chinese Smartphone <i>A.W. Murti & G. Gayatri</i>	37
The Effect of TQM Dimensions on The Performance of Zakat Institution as Non-Profit Organizations <i>A. Firmanto & Y. Nasution</i>	41
Does Live Streaming Selling Affect Customer Engagement and Purchase Intention? The Shopee Live Platform Study Case <i>Arisman & I. Salehudin</i>	45
The Effect of Environmental, Social, and Governances Score and Ownership Structure Toward Capital Cost <i>A. Gian</i>	49
The Effect of Enterprise Risk Management (ERM), and Intellectual Capital (IC) on The Performance of Banking Organizations Listed in Indonesia <i>A. N. Hidayat & D. Hanggraeni</i>	53

The Effect of Stock Liquidity on the Capital Structure of Companies in Indonesia <i>B.A. Christian & M. Ulpah</i>	57
Emerging Market Bonds Liquidity Trend Analysis During The Covid-19 Pandemic <i>C.L. Maliha & R. Rokhim</i>	61
Innovative Work Behavior in Public Sector Organization: The Effect of Proactive Personality, Work Engagement, and Transformational Leadership <i>D. Radistya & P. M. Desiana</i>	65
The Determinants of Cash Holdings and CH-SOA on Non-Financial Firms Listed on IDX <i>D. Ambarsari & E. Rizkianto</i>	69
The Effect of Market Power and Diversification on Banking Stability in Indonesia <i>D. Lapika & R. Prijadi</i>	73
The Effect of Islamic Work Ethics on Organisational Changes in Indonesian Islamic Banking <i>F. Harahap & F. Martdianty</i>	77
The Effect of School Image and Service Quality to the Loyalty with Satisfaction as mediating variable in Top and Bottom Social Class of Students and Parents in Private Secondary School in Semarang <i>F. Pentadini & R.Y. Wahyuningdyah</i>	81
The Effect of Investor Attention during Bookkeeping on IPO Underpricing: The Difference between Family and Non-Family Firms <i>F. Kesuma & C.A. Utama</i>	85
Employee Readiness for Change toward Indonesia's New Policy: Examining the Effect of Ethical Leadership, Organizational Culture, and Organizational Commitment <i>G.G. Putri & A. Satrya</i>	89
Return Resilience and Volatility: The Role of ESG Score in India before and during COVID-19 Pandemic <i>H.P. Haris & I.A. Ekaputra</i>	93
How Can Perceived Support Improve Employees' Motivation to Learn? A Case Study of Supreme Audit Board <i>I. Mayasari & N. Ardiyanti</i>	97
The Mediating Role of Green Skepticism in the Influence of Greenwashing Perception on Green Purchasing Intentions <i>I.D. Neswari & N. Sobari</i>	101
The Determinants of Corporate Leverage and Speed of Leverage Adjustment in Indonesia <i>K. Rahmah & E. Rizkianto</i>	105
The Role of Brand Love and Customer Engagement in Building Customer Trust, Customer Loyalty, and Word of Mouth: The Case of Local Fashion Brands <i>K. Azzahra & E. Yuliati</i>	109
Factors in Mobile Game Ads on Youtube that Affect Users' Download Intention <i>P. Kurniawan & A. Yeshika</i>	113

The Impact of Liquidity Creation on Indonesian Commercial Banks Profitability Before and During the COVID-19 Pandemic <i>M.Y.R. Margana & D.A. Chalid</i>	117
Continuous Intention Analysis of Video Conferencing Services <i>M. Azwir & S. Noviaristanti</i>	121
Deposit Adequacy Analysis: A Case Study of Biller Transactions at PT. Sarana Pactindo <i>M.B.A. Kesuma & G. Ramantoko</i>	125
A Case Study of Renewable Energy Consumption, Financial Development, and Economic Growth in Indonesia, the Philippines, and Malaysia <i>M.R. Novyandi & E.P. Anas</i>	129
The Effect of Investment Growth Rate and Total Revenue on Firm Performance <i>N. Almas</i>	135
Analysis of Factors Affecting Equity Mutual Funds Performance in Indonesia <i>N. Anastasya & Z. A. Husodo</i>	139
Turnover Intention in Generation Z: The Impacts of Perceived Organizational Prestige, Organizational Identification, Quarter-Life Crisis, and the Mediating Role of Psychological Empowerment <i>N. L. Geni & P. M. Desiana</i>	143
The Impact of R&D Investments on Financial Performance of Pharmaceutical Companies: Accounting for Intangibles <i>N.P.A. Wardani & R. Prijadi</i>	147
Accelerating Human Capital Development through Digital Learning Experience in the Pandemic Era (Case Study: Evaluation of Implementation Enterprise University Platform in Petrokimia Gresik) <i>N. Kiswanto</i>	151
The Millennial Generation's Interest in Investing and Trading Cryptocurrencies <i>O. Meidina</i>	155
The Effect of Perceived Organizational Support on Individual Readiness for Change: The Role of Psychological Capital <i>R.A. Anwar & F. Martdianty</i>	159
The Impact of Advertising Invasiveness on Advertising Avoidance on Instagram Ads <i>S.L. Rahmasari & N. Sobari</i>	163
The Effect of Content Marketing on Customer Engagement on Local Beauty Brands on Instagram <i>S.P. Hade & A.D. Hadisumarto</i>	167
The Impact of the President Director's Gender, Age, and Education on Cash Holding Before and During the COVID-19 Pandemic (Empirical Study on All Non-Financial Companies Listed on the Indonesia Stock Exchange for the 2018-2020 Period) <i>S.N. Putri & D.A. Chalid</i>	173
Factors Influencing Intention to Use Card-less Automatic Teller Machine (ATM): An Integration of TAM and TPB <i>T.K. Swasti & N. Sobari</i>	179

Adoption Intention of QR Code Payment: Development of MTAM and UTAUT2 Model Extension <i>T.J.S. Glory & A.A. Agus</i>	185
The Role of Emotional Intelligence on Leadership Emergence by Leadership Networking <i>U.S. Wibowo & M.S. Andrias</i>	189
Antecedent and Outcomes of Ad-Evoked Nostalgia on Facebook and Instagram among Indonesian Millennial Consumers <i>V. Damayanti & T.E. Balqiah</i>	193
Determinant of Profitability Infrastructure Listed Firm in Indonesian Stock Exchange <i>V.A.E. Rizky & E. Rizkianto</i>	197
An Analysis of Shared Leadership and Its Effects on Team Creativity using Leadership Networks <i>Z.A. Akbar & M.S. Andrias</i>	201

The Psychological Impact of Pricing Flash Sale and Free Shipping Policy on Perceived Value and Purchase Intention Towards the Sales of Beauty Product at Shopee Platform

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ABSTRACT: How are effective pricing flash sales and free shipping policy in influencing customer purchase intention on the sales of beauty products at the Shopee platform psychologically? This research is intended to find out how customer purchase intention was influenced by psychological pricing with the factor of perceived value, perceived scarcity, time pressure, and product involvement. Drawing on the survey of 268 respondents of Shopee users, free shipping policy is positively related to purchase intention, whereas flash sales have a negative effect to purchase intention. Other factors are discussed in this research to see how effective free shipping and flash sale are in influencing customer purchase intention. The observations have important implications for internet retailers.

1 INTRODUCTION

The COVID-19 pandemic impacts all business sectors in Indonesia. Many companies are forced to close their businesses and lay off a large number of employees because they are unable to pay the company's operational costs. In these difficult times, many employees who have been laid off have switched professions to become entrepreneurs, which has led to increased competition between local businesses. According to a survey conducted by WeareSocial, Indonesia ranks first in e-commerce used in the world with a figure of 88% (Kemp, 2021). Analytic Data Advertising (ADA) explained that online shopping activities in Indonesia have increased by 400 percent since March 2020 as a result of the COVID-19 pandemic (Komalasari, 2020).

Due to the pandemic, a lot of people started to be concerned about their beauty. In a survey conducted by Kompas, the sales of facial cosmetics in early 2021 increased up to 46.8 percent in the e-commerce market, and more than 80 percent of consumers buy beauty products through the Shopee platform (Haasiani, 2021). Shopee happened to give a lot of discounts and promos to their customers such as free shipping (TFS) vouchers and flash sales (FS), which are proven to be able to increase the number of sales. This study aims at seeing how effective flash sales and free shipping are in increasing customer purchase intention.

2 LITERATURE REVIEW

Multiple researchers have conducted studies that are relevant to this research. Huang & Cheng (2015) found that item-based free shipping tended to produce higher purchase intentions than nominal-based free shipping policies. This research aimed to see how consumers evaluate and respond to two forms of free shipping policy that were economically equivalent but differed in form, namely: item-based offers (example: free shipping for a minimum order of "4 items") and dollar-based (example: free shipping for a minimum order "\$100"). A study conducted by Peng et al. (2019) showed that perceived value had a positive relationship with purchase intention in flash sale platforms in China. In this study, it was revealed that high involvement products had a negative moderating effect of time pressure on the relationship between perceived value and purchase intention, while low involvement products had smaller differences in moderating the negative effect of time pressure on the relationship between perceived value and purchase intention. Lastly, Zhang et al. (2018), argued that the use of flash sales had two functions, namely to promote products and to increase demand during normal sales periods.

3 METHODOLOGY

This study uses a causal approach with a scenario-based experimental data collection method, where the researcher distributes a questionnaire by manipulating the existing stimulus to measure the effect of the dependent variable and produce relevant answers. Data collection was carried out from June 11, 2021, to September 10, 2021. During the data collection, the researchers managed to collect as many as 670 respondents who participated in the research spread over 4 (four) questionnaires, with details of respondents: on the questionnaire (1) 256 respondents, questionnaire (2) 115 respondents, questionnaire (3) 103 respondents, and questionnaire (4) 196 respondents. However, only 268 respondents passed the screening test with the criteria of being Indonesian citizens, older than 17 years old, know the Shopee platform, and have purchased beauty products on the Shopee platform. The manipulation check and attention check were carried out in the questionnaire. This questionnaire was made using Google Form media which was distributed through social media LinkedIn, Facebook, WhatsApp, and Instagram both within Jabodetabek (Jakarta, Bogor, Depok, Tangerang, and Bekasi cities) and outside Jabodetabek. The data were analyzed using GLM ANOVA with SPSS 26 program.

4 RESULTS

Table 1. Hypothesis Analysis Towards Purchase Intention

Source	Dependent Variable: PI		
	Tests of Between-Subjects Effects		
	Mean Square	F	Sig
Corrected Model	1.100	5.338	0.000
Intercept	0.234	1.136	0.295
PV	0.410	1.991	0.109
FS	0.125	0.609	0.441
TFS	1.250	6.062	0.020*
TP	0.156	0.755	0.392
IV	5.684	27.570	0.000*
PV x TP	0.989	4.798	0.002*
TP x IV	1.499	7.270	0.011*
PV x TP x IV	1.081	5.243	0.001*
R squared = 0.033 (Adjusted R Squared = 0.007)			

Note: PS = perceived scarcity, TP = time pressure, IV = product involvement, PV = perceived value, dan PI = purchase intention

*p < 0.05

This research was analyzed using GLM ANOVA. The analysis was conducted to see the relationship between TFS, FS, and perceived scarcity as the moderating factors towards perceived value, but none of the results showed positive results between the relationship. Jha et al. (2019) argued that the ability to perceive scarcity might be limited by the ambiguity of one's interpretation, which makes the perception of scarcity less effective than the use of time restrictions. From the previous research, Zhang et al. (2018) stated that FS could increase customers' perceived value and sale by comparing the discounted price on the FS platform with the original price charged in the bricks-and-mortar shop. Interestingly, both TFS and FS had no positive effect on increasing product perceived value. This might be caused by the use of stimulus only by picture, so it did not show a running second, which caused less perceived value.

Table 1 shows the relationship between TFS, FS, PV, IV, and TP on purchase intention. The results show that free shipping policy was positively related to purchase intention, whereas flash sales had a negative effect to purchase intention. According to the analysis, product involvement had a significant positive effect towards purchase intention. Other result shows where time pressure significantly moderates the relationship between perceived value and purchase intention with the significance value of 0.002. Different from the previous research conducted by Peng et al (2019), where time pressure had a significant negative regulating effect on the relationship between perceived emotional/social value and purchase intention. Based on Table 1, product involvement has positively strengthened time pressure in moderating the relationship between

perceived value and purchase intention. Zaichkowsky (1985) explains in his study that product involvement influences purchasing decisions in terms of customer relevance to the needs and value of a product. Product involvement, as an important variable in purchasing decision making, will directly affect consumers' preferences, evaluations, and tendencies to repurchase (Zhao, Du, Zu, 2019). The result shows that between PV, TP, and IV has positive interaction towards purchase intention, as this result strengthened the use of flash sale towards the sales of beauty product in Shopee platform. Huang & Cheng (2015) stated that the use of time limits was a motivation for sellers to create a product scarcity effect and this was proven to be able to increase the perceived value of the offer related to the feeling of product scarcity. Perceptions of insufficient amount of time lead to greater customer time pressure to reduce customer attention to more product information and access relevant information (Quan, Al-Ansi, and Han, 2021).

5 CONCLUSION

5.1 Conclusion

According to the analysis and hypothesis tests, the conclusion was that TFS and FS had no correlation to perceived value, and perceived scarcity had no effect in moderating TFS and FS to perceived value. Product involvement had a significant effect on strengthening time pressure as the moderator between perceived value and purchase intention. Time pressure had a significant effect on moderating the relationship between perceived value and purchase intention. Perceived value had no significant effect on purchase intention in sales of beauty products at the Shopee platform.

5.2 Limitation

Based on the results above, there are some limitations in this study that can be input for further research.

1. This research only tested low involvement products, it did not test high involvement products.
2. When the experimental scenario simulated a scenario that did not exist on the Shopee platform, there was ambiguity or confusion that caused many respondents to not pass the manipulation check.
3. The stimulus used only used images to reduce the level of urgency in its effect on the time pressure variable.
4. The usage of stimulus leads to one brand so that it could have caused bias.

REFERENCES

- Haasiani, N. (2021). Data Penjualan Kosmetik Wajah: Brand Lokal Kuat Bersaing [Data of Sales of Facial Cosmetics: Local Brands Are Strongly Competitive]. Kompas. <https://kompas.co.id/article/data-penjualan-kosmetik/>
- Huang, W.-H., & Cheng, Y.-C. (2015). Threshold free shipping policies for internet shoppers. *Transportation Research Part A: Policy and Practice*, 82, 193–203. <https://doi.org/https://doi.org/10.1016/j.tra.2015.09.015>
- Jha, S., Dutta, S., & Koksai, A. (2019). Effectiveness of monetary discounts: comparing quantity scarcity and time restriction. *Journal of Consumer Marketing*, 36(7), 901–910. <https://doi.org/10.1108/JCM-07-2018-2763>
- Kemp, S. (2021). Digital 2021: Indonesia. Data Reportal. <https://datareportal.com/reports/digital-2021-indonesia>
- Komalasari, T. D. (2020). Belanja Online Meningkat 400 Persen, BPKN: Masih Banyak Dikeluhkan Konsumen [Online Shopping Increases by 400 Percent, BPKN: Consumers still Complain A Lot]. *Pikiran Rakyat*. <https://www.pikiran-rakyat.com/ekonomi/pr-01399518/belanja-online-meningkat-400-persen-bpkn-masih-banyak-dikeluhkan-konsumen>
- Peng, L., Zhang, W., Wang, X., & Liang, S. (2019). Moderating effects of time pressure on the relationship between perceived value and purchase intention in social E-commerce sales promotion:

- Considering the impact of product involvement. *Information & Management*, 56(2), 317–328.
<https://doi.org/10.1016/j.im.2018.11.007>
- Zaichkowsky, J. L. (1985). Measuring the Involvement Construct, *Journal of Consumer Research*, Volume 12, Issue 3, December 1985, Pages 341–352, <https://doi.org/10.1086/208520>
- Zhang, M., Zhang, J., Cheng, T. C. E., & Hua, G. (2018). Why and how do branders sell new products on flash sale platforms? *European Journal of Operational Research*, 270(1), 337–351.
<https://doi.org/10.1016/j.ejor.2018.02.051>
- Zhao, Z., & Liang, F. (2019). Effect of product type and time pressure on consumers' online impulse buying intention, 2(2), 137–154. <https://doi.org/10.1108/JCMARS-01-2019-0012>

Factors Determining Purchase Intention and Purchase Behavior of Green Product

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ABSTRACT: This research aims at investigating the factors affecting green purchase intentions and green purchase behavior of green products based on the theory of planned behavior in Indonesia. The findings revealed that previous purchase experience was not suitable as the first point of reference in determining purchase intention, particularly concerning green products. Environmental consciousness and green attitudes had a significant and positive effect on green purchase intentions. Moreover, green purchase intentions, environmental consciousness, and green attitudes had a significant and positive effect on green purchasing behavior, whereas environmental consciousness and green attitudes had a direct and indirect effect on green purchase intentions.

1 INTRODUCTION

Environmental issues encourage changes in consumers' lifestyles and business activities, where green marketing appears as the result of changes in consumers' lifestyles and business activities (Larson et al., 2015). Biswas & Roy (2015) also found that green marketing encouraged consumers to purchase green products. Consumers also actively supported sustainable development in the form of green products to reduce their impact on the environment (Oliver, 2013). On the Asian regional scale, according to Feber et al. (2021) mentioned three important findings in the survey conducted, one of which was that Indonesia was among the top three countries in Asia with a high level of concern for environmental and sustainability issues.

According to Wei et al. (2017), the actual purchase of green products has not yet been realized and translated based on this higher desire. The purpose of this research was to conduct operational actions and analyse the direct and indirect effect of previous purchase experience (PPE), environmental consciousness (EC) and attitude towards green product (AGP) on green purchase intention (GPI) with AGP and EC as moderators to allow in-depth investigation regarding the relationship between GPI and green purchase behavior (GPB) in Indonesia today.

2 LITERATURE REVIEW

2.1 *Green Product*

Green products are products that use conservative energy-saving resources to reduce toxic, pollution, and waste agents to protect the environment. According to Lu et al. (2011), green products with sustainable properties offer a variety of benefits, including environmental, social, and economic benefits, which also protect public health, welfare, and the environment.

2.2 *Theory of Planned Behavior*

The theory of planned behavior (TPB), as an extension of the theory of reasoned attitude (TRA), considers the decision made by humans as per their will. Based on TPB, the intention is influenced by attitude, subjective norm, and perceived behavioral control. Han et al. (2010) stated that TPB is more appropriate to use in the research on green behavior since there has been a modification process to facilitate the process of understanding green consumer behavior.

2.3 Previous Purchase Experience

Previous purchase experiences refer to a result of the cognitive, affective, and emotional responses of customers to direct or indirect contact with service providers, brands, or products (McColl-Kennedy et al., 2015). Parkinson et al. (2018) stated that previous experience is considered as a form of information source that is confidential (personal) as the foundation for taking decisions in the future.

2.4 Environmental Consciousness

The act of consumption is identified as a reflection of the consumers' environmental awareness to purchase, use, and dispose of environmentally friendly products (Samarasinghe, 2012). Therefore, environmental consciousness can be defined as a variable determining individual perceptions that lead to purchase intention (Cerri et al., 2018).

2.5 Green Attitude

According to Wicker (1969), attitude is based on feelings as a result of self-evaluation of concepts related to likes and dislikes of objects, things, actions, or other abstract concepts. Kotchen and Reiling (2000) stated that green attitudes are the main determinant factors of environmental behavior and behavioral intention concerning purchasing environment-friendly products.

2.6 Green Purchase Intention

Green purchase intention (GPI) refers to the willingness of consumers to purchase green products regarding environmental problems and hold motives for purchasing green products (Chan, 2001). Research by Wei et al. (2017) found that purchase intention was the main variable to predict purchase behavior.

2.7 Green Purchase Behavior

Chan (2001) in their research on green product purchase behavior found that the purchase of a green or sustainable product, which is also recyclable to the environment, was intended to avoid products that potentially harmed the environment and society. According to Joshi & Rahman (2015), consumer intention in purchasing green products was material for evaluating green product purchase behavior leading to changes in consumer purchase decisions for green-related products.

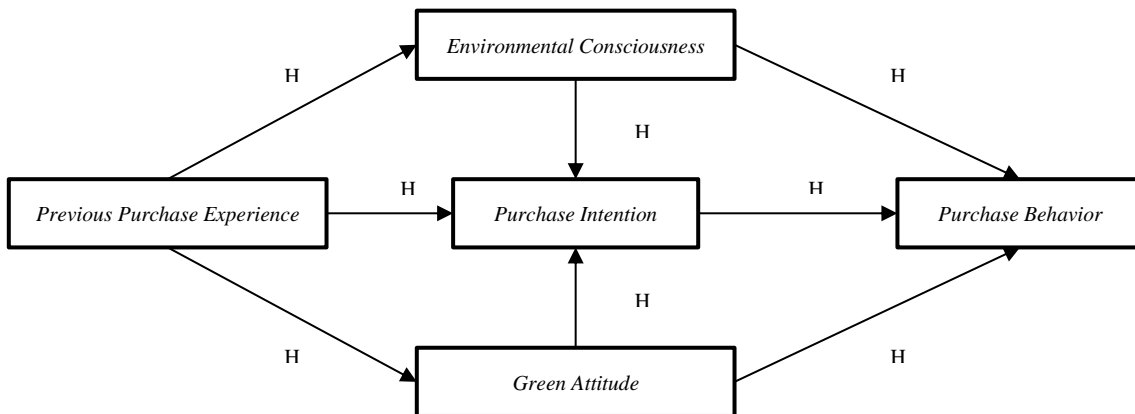


Figure 1. Research Conceptual Model

3 RESEARCH METHOD

3.1 *Sample & Procedure*

The population and the sample for this research were Indonesian people aged 18 years old or above with previous experiences in purchasing and using green products in the past 6 months. This research involved 240 respondents who were considered valid. Primary data was obtained through a survey conducted and distributed online. Participants were required to fill out the screening questions before they could fill out the questionnaire.

3.2 *Measures & Statistical Analysis*

The questionnaire measured previous purchase experience, environmental consciousness, green attitude, green purchase intention, and green purchase behavior. The indicators used a five-point Likert scale intended to avoid the tendency to choose neutral answers. The data analysis was conducted using SEM with AMOS 26 to test the measurement model and structural model.

4 RESULTS AND DISCUSSIONS

Table 1. Results

Hypothesis	Latent Variable Relationship	Estimate	S.E.	P-value	Conclusion
1	PPE → GA	0.063	0.036	0.083	Rejected
2	PPE → EC	0.064	0.064	0.317	Rejected
3	PPE → GPI	-0.008	0.042	0.856	Rejected
4	GA → GPI	0.278	0.098	0.005**	Accepted
5	EC → GPI	0.807	0.060	0.000**	Accepted
6	GA → GPB	0.217	0.076	0.004**	Accepted
7	EC → GPB	0.594	0.077	0.000**	Accepted
8	GPI → GPB	0.273	0.068	0.000**	Accepted

In this research, previous purchase experience did not affect the internalization process of price, discount, and information on green products as factors related to sustainability aspects. When green information owned by an individual is sufficient to educate individuals regarding green products and encourage individuals to choose green products, the consciousness and the attitude of the individual will be more positive, which eventually affect improved green purchases intention and green purchase behavior. The findings revealed that respondents had formed an intention towards green products based on positive attitudes and environmental consciousness towards green products. This was indicated by the responses showing that respondents had the motivation, consideration, and willingness to switch and buy green products.

5 CONCLUSIONS

The purpose of this research was to conduct operational actions and analyse the direct and indirect effect of PPE, EC and AGP on GPI with AGP and EC as moderators to allow in-depth investigation regarding the relationship between GPI and GPB in Indonesia today. The results had important contributions to studies on consumer behavior in environmental contexts. The previous purchase experience was not suitable as the first point of reference in determining purchase intention, particularly concerning green products. This research also found that environmental consciousness and green attitudes had a direct and indirect effect on green purchase intentions. It was also found that purchase intention was the main variable determining purchase behavior.

REFERENCES

- Biswas, A., & Roy, M. (2015). Green products: an exploratory study on the consumer behaviour in emerging economies of the East. *Journal of Cleaner Production*, 87, 463–468. <https://doi.org/10.1016/j.jclepro.2014.09.075>
- Chan, Ricky. (2001). Determinants of Chinese Consumers' Green Purchase Behavior. *Psychology and Marketing*. 18. 389 - 413. 10.1002/mar.1013.
- Cerri, C. E. P., Cerri, C. C., Maia, S. M. F., Cherubin, M. R., Feigl, B. J., & Lal, R. (2018). Reducing Amazon Deforestation through Agricultural Intensification in the Cerrado for Advancing Food Security and Mitigating Climate Change. In *Sustainability* (Vol. 10, Issue 4). <https://doi.org/10.3390/su10040989>
- Duerden, M. D., & Witt, P. A. (2010). An Ecological Systems Theory Perspective on Youth Programming. *Journal of Park and Recreation Administration Summer*, 28(2), 108–120.
- Feber, D., Granskog, A., Lingqvist, O., & Nordigården, D. (2021). *Sustainability in packaging: Consumer views in emerging Asia*. McKinsey. <https://www.mckinsey.com/industries/paper-forest-products-and-packaging/our-insights/sustainability-in-packaging-consumer-views-in-emerging-asia>
- Han, H., Hsu, L.-T. (Jane), & Sheu, C. (2010). Application of the Theory of Planned Behavior to green hotel choice: Testing the effect of environmental friendly activities. *Tourism Management*, 31(3), 325–334. <https://doi.org/https://doi.org/10.1016/j.tourman.2009.03.013>
- Joshi, Y., & Rahman, Z. (2015). Factors Affecting Green Purchase Behaviour and Future Research Directions. *International Strategic Management Review*, 3(1), 128–143. <https://doi.org/10.1016/j.ism.2015.04.001>
- Mccoll-Kennedy, J.R. ... Et Al., 2015. Fresh Perspectives On Customer Experience. *Journal Of Services Marketing*, 29(6-7), Pp. 430-435.
- Oliver, J. D. (2013). Promoting Sustainability by Marketing Green Products to Non-Adopters. *Gestion 2000, Volume 30*(3), 77–86. <https://doi.org/10.3917/g2000.303.0077>
- Wei, C.-F., Chiang, C.-T., Kou, T.-C., & Lee, B. C. Y. (2017). Toward Sustainable Livelihoods: Investigating the Drivers of Purchase Behavior for Green Products. *Business Strategy and the Environment*, 26(5), 626–639. <https://doi.org/10.1002/bse.1942>

Impact of Organizational Ambidexterity on the Performance of Tourism SMEs in Indonesia Through Strategic Renewal

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ABSTRACT: The main objective of this study was to examine the role of ambidexterity and strategic renewal on the performance of Small and Medium-sized Enterprises (SMEs) in Tourism. In a dynamic environment, companies are required to adapt to market conditions. The approach to keep the company competitive in the industry competition is realized by creating a strategy. SMEs in most countries are defined as organizations with fewer than 250 employees and are the backbone of every economy worldwide. The current challenge for tourism SMEs in Indonesia is adapting to new environmental changes. The implementation of the social distancing health protocol encourages SMEs to find new ideas to remain agile and survive in pandemic conditions. SMEs' ambidexterity has the ability to manage the exploitation of existing competencies and exploration of new competencies to increase efficiency without losing the ability to develop new ideas, products, and processes. In creating a strategic renewal, organizations need to develop organizational ambidexterity. Several antecedents supported the development of organizational ambidexterity, including network capability, knowledge management, and agile leadership.

1 INTRODUCTION

Based on data from Kemenparekraf in the January - October 2020 period, foreign tourist visits during the Covid-19 pandemic fell 72.35% compared to the same period 2019. There were 1.5 million layoffs, including 1.24 million formal workers and 265 thousand informal workers. As many as 6,000 hotel occupancy fell by 60%. SMEs typically suffer financial losses, reduced sales volume, inability to meet contractual requirements, cash flow difficulties, staff reductions, and even business closures during or after a crisis event. However, due to their small size and low level of bureaucracy, SMEs have advantages in terms of flexibility, learning ability, innovation, and customer relations (Alves et al., 2020). The challenge for tourism SMEs in Indonesia today is the ability to adapt to new environmental changes. SMEs with ambidexterity are able to manage exploitation and exploration to increase efficiency without losing the ability to develop new ideas, products and processes (Iborra, Safón, & Dolz, 2020). Tushman and O'Reilly (2008) linked ambidexterity to organizational change and asked organizations to develop different structures and strategies to cope with global evolutionary and revolutionary transformations. This study will examine whether network capability, knowledge management and agile leadership affect the performance of Tourism SMEs in Indonesia through the role of ambidexterity and strategic renewal.

2 LITERATURE REVIEW

Network Capability represents the company's ability to develop and utilize relationships between organizations for its benefit. By establishing and developing external networks, the company will gain access to resources and competencies such as capital, goods, and innovations outside the internal organization (Figueiredo, 2011). Knowledge management is defined as the explicit and systematic management of knowledge related to creation, organization, diffusion, usage, and exploitation processes (Dezi et al., 2021). Agile Leadership is an agile leader who can guide his team and continuously influence team behavior by defining, disseminating, and maintaining the organization's vision.

Ambidexterity is related to Strategic Renewal where in carrying out Strategic Renewal a process is needed to exploit existing competencies and explore new competencies (Gibson & Birkinshaw, 2004). Strategic Renewal is usually described as corporate strategies, structures, systems, and cultures (Agarwal & Helfat, 2009). Strategic renewal can occur when a company develops a new strategy and tries to improve or maintain competitiveness through increased implementation of certain strategies (Klammer et al., 2017). SMEs' performance refers to the results of an organization's activities or investments over a certain period by taking a complex set of steps that integrate skills and knowledge.

Therefore, to have a strategic renewal capability, the organization's ability to conduct ambidexterity activities is needed, which is supported by network capability, knowledge management, and agile leadership, thus encouraging organizations to improve firm performance, as reflected in Figure 1.

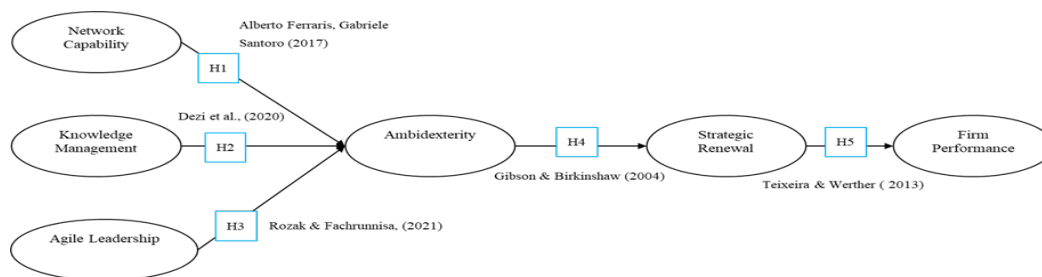


Figure 1. Conceptual Model

3 METHODOLOGY

This study aims at analyzing the impact of network capability, knowledge management, and agile leadership on the performance of tourism SMEs in Indonesia through strategic renewal and ambidexterity. This study employed a quantitative method, and the data were collected using a survey questionnaire via Google Forms. The data analyzed was the primary data obtained from the survey questionnaire distributed to tourism SMEs owners and managers.. The unit of analysis in this study is a tourism SME whose business activities are engaged in providing goods and services in the tourism sector such as hotel, restaurants, souvenir shops, travel agents, tourist attractions and transportation. From the unit of analysis obtained valid data from 119 respondents. This study used a questionnaire instrument using Likert's six scales to avoid neutral answers from respondents.. This study used Structural Equation Modeling (SEM) as the analytical method. SEM analysis aims at confirming the research model based on empirical data.

4 THE RESULTS OF THE STUDY

The interesting finding of this study was that H2, H3, H4, and H5 hypotheses were acceptable because the t-statistic was above 1.96, and the loading factor was above 0.5 except for H1, which was rejected. Through this research, it is shown that the quality of relationships owned by tourism SME business actors in Indonesia is still not good in forming networks that can support information and knowledge input. Some of the basic problems faced by SME business actors in building quality networks are related to limited capital, lack of knowledge, and being slow in adapting to environmental changes, especially technological changes. These results concluded that Knowledge Management and Agile Leadership are able to improve performance through Ambidexterity and Strategic Renewal. The development of knowledge management processes can create new knowledge that can assist companies in managing the flow of knowledge. Therefore, companies must ensure that knowledge can be used effectively and efficiently to increase performance by exploring new opportunities and exploiting existing primary activities (Darroch & Mcnaughton, 2002).

5 CONCLUSIONS AND IMPLICATIONS

The results of this study proved the importance of Network Capability, Knowledge Management, and Agile Leadership on the performance of tourism SMEs in a crisis caused by the Covid-19 outbreak. In this crisis, those SME companies could still deliver the expected performance. An interesting finding from this study was that the network capability variable does not significantly affect the ambidexterity variable. It signified that tourism SMEs in Indonesia still had weaknesses in utilizing their partners to gain more knowledge. By acquiring new knowledge, SMEs can improve the quality of the products or services produced which will help improve performance.

REFERENCES

- Agarwal, R., & Helfat, C. E. (2009). Strategic Renewal of Organizations. *Organization Science*, 20(2), 281–293. <https://doi.org/10.1287/orsc.1090.0423>
- ALVES, J., LOK, T. C., LUO, Y., & HAO, W. (2020). *Crisis Management for Small Business during the COVID-19 Outbreak: Survival, Resilience and Renewal Strategies of Firms in Macau*. 1–29. <https://doi.org/10.21203/rs.3.rs-34541/v1>
- Darroch, J., & Mcnaughton, R. (2002). Examining the link between knowledge management practices and types of innovation. *Journal of Intellectual Capital*, 3(3), 210–222. <https://doi.org/10.1108/14691930210435570>
- Dezi, L., Ferraris, A., Papa, A., & Vrontis, D. (2021). The Role of External Embeddedness and Knowledge Management as Antecedents of Ambidexterity and Performances in Italian SMEs. *IEEE Transactions on Engineering Management*, 68(2), 360–369. <https://doi.org/10.1109/TEM.2019.2916378>
- Eggers, F. (2020). Masters of disasters? Challenges and opportunities for SMEs in times of crisis. *Journal of Business Research*, 116(May), 199–208. <https://doi.org/10.1016/j.jbusres.2020.05.025>
- Figueiredo, P. N. (2011). The Role of Dual Embeddedness in the Innovative Performance of MNE Subsidiaries: Evidence from Brazil. *Journal of Management Studies*, 48(2), 417–440. <https://doi.org/10.1111/j.1467-6486.2010.00965.x>
- Gibson, C. B., & Birkinshaw, J. (2004). The Antecedents, Consequences, and Mediating Role of Organizational Ambidexterity. *Academy of Management Journal*, 47(2), 209–226. <https://doi.org/10.5465/20159573>
- Klammer, A., Gueldenberg, S., Kraus, S., & O'Dwyer, M. (2017). To change or not to change—antecedents and outcomes of strategic renewal in SMEs. *International Entrepreneurship and Management Journal*, 13(3), 739–756. <https://doi.org/10.1007/s11365-016-0420-9>
- Leung, K., Bhagat, R. S., Buchan, N. R., Erez, M., Gibson, C. B., Buchan, N. R., ... Gibson, C. B. (2013). *future*. 36(4), 357–378.
- O'Reilly, C. A., & Tushman, M. L. (2008). Ambidexterity as a dynamic capability: Resolving the innovator's dilemma. *Research in Organizational Behavior*, 28, 185–206. <https://doi.org/10.1016/j.riob.2008.06.002>

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The Analysis of Electronic Word of Mouth (E-WOM) Towards CBBE: A Study on Maybelline Brand

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ABSTRACT: Despite the fact that local cosmetic brands have enlivened the Indonesian cosmetic market, international cosmetic brands continued to have a sizable market share in Indonesia. The purpose of this research was to emphasize the importance of consumer response in providing reasons to buy a brand by evaluating the impact of electronic word-of-mouth (e-WOM) on CBBE and its outcomes such as brand preference, willingness to pay premium prices, and purchase intention. The theory of Stimulus-Organism-Response (S-O-R) and SEM techniques were used in this study. In terms of their significance as sources of CBBE, four sources of CBBE were evaluated: brand awareness (BAW), brand association (BAS), perceived quality (PQ), and brand loyalty (BL). The results of this study found that e-WOM has a positive effect on its sources. Then, perceived quality and brand loyalty showed a positive effect on CBBE, and CBBE had a positive effect on its outcomes.

1 INTRODUCTION

The rapid internet development has contributed to the development of the online retail space, opening opportunities for local start-ups and foreign investors to compete in the Indonesian e-commerce market. The presence of e-commerce in Indonesia makes consumers review more of an online mode called electronic word of mouth (e-WOM) (Chakraborty & Bhat, 2018). Because it is direct and original, e-WOM in the form of a review significantly influences marketing and product sales, so marketers must strive to ensure that e-WOM about the company and its products remains positive. The brand equity dimension will also be affected when consumers look for various reviews about brands (which are considered credible) and try to evaluate those reviews to evaluate the brand (Buil et al., 2013; Rios and Riquelme, 2010). Therefore, brand equity is considered essential to achieve good results in business because it allows the seller to excel through a strong brand. The result of brand equity is that customer responses vary, including willingness to pay a high price, brand extension, brand preference, and repurchase intention.

2 LITERATURE REVIEW

2.1 *Stimulus-Organism-Response (S-O-R) Model*

This research framework was built on the stimulus-organism-response (S-O-R) theoretical foundation. The first component is the stimulus which stimulates an individual to perform an activity. The second component is the organism, concerned with the internal processes and structures that mediate stimuli and their eventual responses. Mediation processes and structures consist of feeling, thinking, physiological, and perceptual activities. The last component, response, indicates the influence of perceived value and trust in a brand due to cognitive activity in which an individual will provide a behavioral response (Goyal, Chauhan, & Gupta, 2021).

2.2 *Electronic Word of Mouth (E-WOM)*

Electronic Word of Mouth (E-WOM) is a considerably effective effort to transfer opinions from one person to another on social media or the internet regarding the company's products and services (Severi, Ling, & Nasermodeli, 2014).

2.3 *Customer-based Brand Equity (CBBE)*

Kotler and Keller (2016) reveal that brand equity is in the form of added value given to a product and service for consumers, reflected in the way consumers think, feel, and act concerning brands, including price, market share, and profitability. CBBE considers various sources that influence brand equity and measure the customer's mindset towards a particular brand (Chakraborty & Bhat, 2018).

2.4 *Sources of CBBE*

Aaker (1991) has distinguished five dimensions describing brand equity: brand loyalty, brand association, perceived quality brand awareness, and other brand equities. Kotler and Keller (2009) define brand awareness as the consumers' ability to recognize and remember brands in detail to make purchases. Brand Awareness is related to the strength of trace in memory which can be measured as the ability of consumers to identify brands under different conditions. Everything related to the brand in memory and has a level of strength is called a brand association. Memory linked to brands is stronger if based on multiple experiences or communication exposures. Many brand associations involve product attributes or customer benefits, providing specific reasons for buying and using the brand (Aaker, 1991). Quality perception is consumers' perception of product or service superiority compared to competitors. Perceived quality provides a consumer's reason to buy and firm a solid aspect to position and differentiate the owned product or service (Lee, 2011). Brand loyalty is the actual attitude and behavior towards a brand, a measure of attitude towards the brand is related to the overall consumer feeling about the product or brand (Aaker, 1991).

2.5 *Outcomes of CBBE*

Building a brand positively affects company performance by influencing consumer responses to brands (Buil, Martinez, & Chernatony, 2013). Brand preference means that consumers prefer brands based on knowledge and feeling (Keller, 2003). Willingness to pay a premium price reflects the amount consumers are willing to pay for a brand compared to other brands that offer similar benefits (Buil, Martinez, & Chernatony, 2013). According to Hosein (2011), buying interest can be measured with interest, information, and attendance.

2.6 *Conceptual framework*

This research was conducted to prove whether overall online reviews could strengthen the brand equity of a brand and a person's intention to make repeat purchases, make the brand-consumer preference, and pay a premium price.

2.7 *Hypotheses*

The hypotheses of this research were listed as the followings:

- H1. Electronic word of mouth (e-WOM) positively affects brand awareness.
- H2. Electronic word of mouth (e-WOM) positively affects brand association.
- H3. Electronic word of mouth (e-WOM) positively affects perceived quality.
- H4. Electronic word of mouth (e-WOM) positively affects brand loyalty.
- H5. Brand awareness has a positive effect on overall CBBE.
- H6. Brand association has a positive effect on overall CBBE.
- H7. Perceived quality has a positive effect on overall CBBE.
- H8. Brand loyalty has a positive effect on overall CBBE.
- H9. CBBE has a positive effect on brand preferences.

- H10. CBBE has a positive effect on willingness to pay a premium price.
H11. CBBE has a positive effect on purchase intention.

3 RESEARCH METHOD

3.1 Design and Sample

This research employed a quantitative research method with an explanatory research approach. The sampling method in this research used a non-probability sampling with purposive sampling technique or a non-probability sample that meets specific criteria (Cooper & Schindler, 2014). The research involved the millennial and Z generations, limited to respondents who were allowed to use cosmetics. Therefore, this research focused on female respondents aged 18-40 years, using at least one of the five e-commerce (*Shopee, Tokopedia, Bukalapak, Lazada, and Blibli*), and have purchased *Maybelline* cosmetic products.

3.2 Data collection method

The sources of data required in this research were primary and secondary data. The primary data of this research was directly obtained by distributing questionnaires to respondents who fulfill the criteria. The questionnaire was distributed online in a Google Form, filled out by the respondents independently. The questionnaires were distributed online through social media and personal chat. Secondary data in this research were reference journals and other sources.

3.3 Data analysis techniques

This research employed a structural data analysis technique with Structural Equation Modeling (SEM). SEM was defined as a related structure formulated in an equation that explained all the relationships between the constructs (dependent and independent variables) involved in the analysis. There were two main stages in analyzing the PLS model: the measurement model analysis (outer model) and the structural model analysis (inner model). The outer model examined the relationship between indicator variables and the associated construct, while the inner model included latent variables or constructs and the relationships.

4 RESULTS AND DISCUSSION

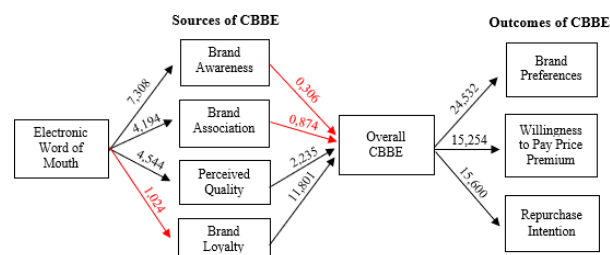


Figure 1. The model of research results with t-statistics value.

This research indicated that E-WOM influenced brand awareness positively and significantly because the reputation created by positive online reviews helped the customers remember the brand name (Brzozowska-Woś & Schivinski, 2019). Nevertheless, brand awareness could not affect overall CBBE because the research respondents were Maybelline consumers who had already bought and used Maybelline. Brand awareness was not essential for the respondents' differential and positive response, or CBBE. E-WOM could positively and significantly affect brand associations because online reviews could strengthen brand associations. However, brand associations could not affect Maybelline's overall CBBE because brand equity was not affected, just brand quality and brand loyalty. E-WOM affected perceived quality positively and significantly because the quantity and quality of online reviews influenced consumer attitudes

towards brand attributes. Therefore, perceived quality refers to the consumer's assessment of the overall product attributes. Perceived quality affected the overall CBBE because Maybelline products were considered superior quality compared to other brands. These aspects could strengthen the CBBE of the brand, which then overall CBBE could influence the brand. Preference, willingness to pay a premium price, and repurchase intention, brand loyalty could not be affected by e-WOM because loyal consumers did not need to spend a lot of time looking for new information to shorten the purchasing decision process (Marshall & Johnston, 2015). On the other hand, brand loyalty, the desired result of consumer-based brand equity, was also a reflection of the degree to which customers were likely to switch to another brand, significantly when the brand changed, either in price or product features (Aaker, 1991). Therefore, brand loyalty could strengthen Maybelline's CBBE, influence brand preference, willingness to pay a premium price, and repurchase intention.

5 CONCLUSION AND IMPLICATION

Based on the explanation above, it concluded that a relationship, influenced by e-WOM until it reaches the final result in the form of brand preference, willingness to pay a premium price, and repurchase intention, is called a perceived quality. Maybelline could improve its products and services through thoughtful design according to consumer needs. Maybelline could evaluate and improve the products based on the reviews obtained through e-commerce. It was in line with the results of this research that the consumers' perceived quality towards the Maybelline brand could be seen based on the obtained online reviews. Moreover, this perception could increase the overall CBBE, and the final result could make Maybelline a consumer's brand preference, repeat purchases, and willingness to pay a premium price. In addition, Maybelline still had to pay attention to consumer loyalty to the brand. One of the efforts to maintain consumer loyalty was by providing free testers for consumers before buying. It was intended to improve the shopping experience because the experience of using the product was crucial to brand loyalty, even for loyal consumers. Consumers had to experience the products owned by Maybelline directly to trigger the repurchase of Maybelline products.

REFERENCES

- Aaker, D.A. (1991). *Managing brand equity. Capitalizing on the Value of Brand Name*. New York: Free Press.
- Brzozowska-Woś, M., & Schivinski, B. (2020). The effect of online reviews on consumer-based brand equity: Case-study of the polish restaurant sector. *Journal of Management and Business Administration*. Central Europe.
- Chakraborty, U., & Bhat, S. (2018). The Effects of Credible Online Reviews on Brand Equity Dimensions and Its Consequence on Consumer Behavior. *Journal of Promotion Management*, 24(1), 57–82.
- Cooper, D.R., and Schindler, P.S. (2014). *Business Research Methods*. (12th ed.). New York, N.Y.: McGraw-Hill/Irwin.
- Goyal, S., Chauhan, S., & Gupta, P. (2021). Users' response toward online doctor consultation platforms: SOR approach. *Management Decision*.
- Hossein, D. R., & Rasool, A. (2011). Evaluation of Brand Equity Based Aaker Model (Case Study LG & Samsung). *Institute of Interdisciplinary Business Research*, 3(6), 174-180.
- Keller, K. L. (2009). Building strong brands in a modern marketing communications environment. *Journal of Marketing Communications*, 15(2–3), 139–155.
- Lee, G.C. (2011). Consumer-based brand equity: a literature review. *Journal of Arts Science & Commerce*.
- Severi, E., Ling, K.C., & Nasermodeli, A. (2014). The impacts of electronic word of mouth on brand equity in the context of social media. *International Journal of Business and Management*, 9(8), 84.

The Role of Corporate Social Responsibility (CSR) and CSR Internal Communications in Predicting Employee Engagement in Indonesia

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ABSTRACT: This research aims to evaluate the role of symmetrical internal communication and Corporate Social Responsibility (CSR) in predicting employees' ethical, legal, economic and philanthropic engagement in Indonesia. The Structural Equation Modelling (SEM) approach was used to collect data from 270 respondents. The result showed that symmetrical internal communication influences employee engagement. In addition, their perception of CSR mediates the relationship between symmetrical internal communication and employee engagement.

1 INTRODUCTION

According to Men et al. (2020), symmetrical internal communication is a critical factor for determining the formation of employee engagement in an organization due to its beneficial impact on engagement. Kang & Sung (2017) stated that its initiatives significantly impact employee engagement within an organization. Internal communication plays a crucial role in generating and maintaining optimal employee engagement (Karanges et al., 2015). One of the essential principles for an organization is to retain its employees by establishing great communication practices (Kang & Sung, 2017). Companies must convey corporate social actions to all firm stakeholders, including employees, by providing adequate responsibility (Duthler & Dhanesh, 2018). Kang & Sung (2017) stated that symmetrical communication significantly affects employee views by determining the strength of their corporate relationships. Meanwhile, Morsing and Schultz (2006) reported that organizations can employ CSR communication models to build a symmetrical two-way communication process between companies and stakeholders. Furthermore, the preliminary research conducted by Dhanesh & Duthler (2018) indicated that two-way symmetrical communication has a favorable impact on employees' opinions of CSR. Farrukh et al. (2019) stated that CSR is attained when used as a tool to promote the well-being of other employees, allowing people to prosper through their employment. Caligiuri et al. (2013) discovered a link between corporate social responsibility and employee engagement.

2 LITERATURE REVIEW

One of the most critical aspects of a company's success is communication, defined as the verbal or nonverbal transmission of ideas, thoughts, or feelings from a sender to recipient (Genç, 2017). The symmetrical communication model allows individuals, organizations, and the general public to change their thinking and behavior (Men, 2014). Symmetrical internal communication systems ensure that firms and executives listen to employees, respond to their input, appreciate proposals, and care about their interests and well-being (Men & Sung, 2019). Furthermore, employee views and appraisals concerning their relationship with the organizations are influenced by symmetrical communication, emphasizing the necessity of transparency (Kang & Sung, 2017). According to Carroll's theory, CSR is not only about charity in this research but also on four aspects, namely economic, legal, ethical, and philanthropic responsibility (Dhanesh, 2014). Gill (2015) stated that corporate storytelling needs to be utilized in organizational CSR to boost employee engagement and predict it. Soane et al. (2012) stated three aspects of employee engagement, namely intellectual, affective, and social, all of which are relevant to the Human Resources Department (HRD).

3 RESEARCH METHODS

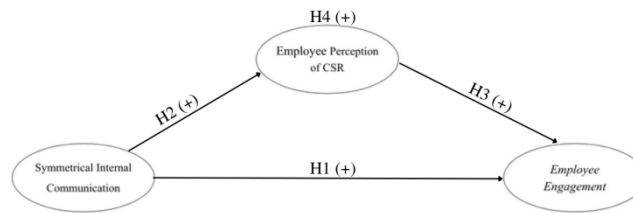


Figure 1: Research model.

The purposive sampling method was used to determine 270 active Indonesian employees who have worked for at least a year. The characteristics tested were graded on a 7-point Likert scale, with 1 and 7 indicating strong disagreement and agreement, respectively. The research models were evaluated using structural equation modeling (SEM), namely Lisrel 8.80 and the hypotheses were also determined.

4 RESULTS

The 270 respondents consist of 51,1% and 49.9% for men and women, respectively. Approximately 93.3% are permanent employee status, while 6.7% are on contract. Furthermore, 10-50 employees (40.7%) have worked in their current organization for more than 2 - 5 years, while 51-100 or 23% were currently employed. This research is one of the subjects of CSR with specific questions concerning respondents' knowledge on CSR programs in their companies in the past year. It was recorded that 84.4% of the respondents knew about the implementation of CSR in their organization.

This research used 8 goodness-of-fit indicators, namely chi-square, RMSEA, GFI, NFI, NNFI, CFI, IFI, and RFI, to assess the overall model fit, of which 7 resulted in a good fit. Although the GFI shows only one marginal fit, but the overall structural model was also in a good fit. After validating the model, the hypotheses were tested.

4.1 Measurement model

According to the findings of confirmatory factor analysis, each indicator has standardized loadings and AVE values larger than 0.5. In addition, each variable has a build reliability value greater than 0.6, which indicates that these indications are very reliable. The measuring model's validity and reliability requirements are satisfactory, and this is also supported by the measurement model's goodness-of-fit criteria.

4.2 Hypothesis testing

The proposed hypotheses were tested with SEM-Lisrel, and the result showed majority support of the relationship between constructs in the research model as follows.

First, symmetrical internal communication has a positive and significant relationship with employee engagement (t-value=2.14; SLF=0.14). Kang & Sung (2017) stated that organizational symmetrical internal communication efforts contribute significantly to higher levels of employee engagement.

Second, symmetrical internal communication has a significant relationship with employee perception of CSR (t-value=8.28; SLF=0.5). Dhanesh & Duthler (2018) stated a positive relationship between two-way symmetrical communication and employees' perceptions of the CSR performance of their organizations.

Third, employee perception of CSR has a significant positive impact on engagement (t-value 8.28; SLF=0.51). This finding is consistent with Farrukh et al. (2019), which found that perceptions of CSR positively affect employee engagement.

Fourth, employee perception of CSR was found to fully mediate the effect of internal communication on engagement (z-value=5,46; sig.=0,05).

4.3 Discussion

This study shows that symmetrical internal communication has a direct influence on employee engagement. These results support the research of Lee et al., (2021) which states that the greater the symmetrical internal communication effort, the significantly increased employee engagement so that the hypothesis can be proven and has a positive relationship. To create symmetrical internal communication between employees to the organization and employees to employees, the role of the organization is needed to provide opportunities for employees to have an open dialogue and provide convenience in expressing opinions.

The results of this research hypothesis indicate that employees' perceptions of CSR are proven to be able to mediate symmetrical internal communication on employee engagement with a fairly high level of mediation significance. The results of this study reveal that one of the dimensions of CSR that has a fairly high level of significance compared to other dimensions is economic responsibility. Dhanesh & Duthler (2018) reveal that although employees perceive the organization they work for as being able to fulfill their economic responsibilities, in essence, what makes employees emotionally connected with co-workers and with the organization entirely depends on organizations that can fulfill their social and environmental responsibilities sustainability.

The other results of this research hypothesis state that employees' perceptions of CSR have a direct influence on employee engagement. Dhanesh (2014) employee engagement can occur in the planning and operational aspects of CSR implementation can give employees a sense of collaboration and a feeling that their opinions and suggestions can be considered, thereby increasing their perception of control over their relationship with the organization.

5 CONCLUSION

Based on research that analyzes the effect of internal symmetric communication on employee engagement through the mediating employee perceptions of Corporate Social Responsibility (CSR) for employees who have worked in the organization/company for at least one year, all hypotheses are proven. The results showed that symmetrical internal communication has a significant positive effect on employee engagement. All direct relationships have a significant t-value and are shown to have a direct effect. Furthermore, the results show that symmetrical internal communication affects employee engagement through a direct mediating role of the overall dimensions of employees' perceptions of CSR.

In conclusion, organizations tend to achieve *employee engagement* by providing opportunities for employees to express their opinions with takes leaders in the organization who have an active role as listeners to employee criticism and suggestions by conducting social dialogue regularly to create two-way symmetrical communication, managers need to regularly check employee productivity to improve the relationship between employees and the business in keeping talented people and creating a conducive and pleasant work environment to increase employee work enthusiasm by considering the balance between work and personal life.

Further research is expected not only to examine two-way symmetrical communication which aims to listen to the interests of stakeholders but also to examine asymmetric communication models to strengthen the company's point of view. Also, need to focus the sample on a particular industry or company so that the managerial implications of the research can be focused on developing that industry or company.

REFERENCES

- Caligiuri, P., Mencia, A., & Jiang, K. (2013). Win-win-win: The influence of company-sponsored volunteerism programs on employees, NGOs, and business units. *Personnel Psychology*, 66(4), 825-860.
- Carroll, A. B. (1991). The pyramid of corporate social responsibility: Toward the moral management of organizational stakeholders. *Business Horizons*, 34(4), 39-48.
- Dhanesh, G. S. (2014). CSR as organization-employee relationship management strategy: A case study of socially responsible information technology companies in India. *Management Communication Quarterly*, 28(1), 130-149.

- Dhanesh, G. S., & Duthler, G. (2018). The role of corporate social responsibility (CSR) and internal CSR communication in predicting employee engagement: Perspectives from the United Arab Emirates (UAE). *Public relations review*, 44(4), 453-462.
- Farrukh, M., Sajid, M., Lee, J. W. C., & Shahzad, I. A. (2020). The perception of corporate social responsibility and employee engagement: Examining the underlying mechanism. *Corporate Social Responsibility and Environmental Management*, 27(2), 760-768.
- Genç, R. (2017). The importance of communication in sustainability & sustainable strategies. *Procedia Manufacturing*, 8, 511-516.
- Gill, R. (2015). Why the PR strategy of storytelling improves employee engagement and adds value to CSR: An integrated literature review. *Public relations review*, 41(5), 662-674.
- Kang, M., & Sung, M. (2017). How symmetrical employee communication leads to employee engagement and positive employee communication behaviors: The mediation of employee-organization relationships. *Journal of Communication Management*. Vol. 21 Iss 1 pp. 82 - 102
- Karanges, E., Johnston, K., Beatson, A., & Lings, I. (2015). The influence of internal communication on employee engagement: A pilot study. *Public relations review*, 41(1), 129-131.
- Men, L. R. (2014). Why leadership matters to internal communication: Linking transformational leadership, symmetrical communication, and employee outcomes. *Journal of Public Relations Research*, 26(3), 256-279.
- Men, L. R., & Sung, Y. (2019). Shaping corporate character through symmetrical communication: The effects on employee-organization relationships. *International journal of business communication*, 2329488418824989.
- Men, L. R., Neill, M., & Yue, C. A. (2020). Examining the Effects of Symmetrical Internal Communication and Employee Engagement on Organizational Change Outcomes. *Public Relations Journal*, 13(4), 1-19.
- Morsing, M., & Schultz, M. (2006). Corporate social responsibility communication: stakeholder information, response and involvement strategies. *Business ethics: A European Review*, 15(4), 323-338.
- Soane, E., Truss, C., Alfes, K., Shantz, A., Rees, C., & Gatenby, M. (2012). Development and application of a new measure of employee engagement: the ISA Engagement Scale. *Human resource development international*, 15(5), 529-547.

The Influence of Brand-Cause Fit on Forwarding Intention and Purchase Intention: The Study between Low Fit and High Fit Femvertising

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ABSTRACT: Femvertising is a new phenomenon in the marketing industry that has raised public attention, especially gender activists. Gender equality and women empowerment are being fought for. Advertising is one of the elements in which this movement is expressed. This study examines the effect of brand-cause fit on attitudes toward femvertising and attitudes toward brand. It further explicates the impact of attitude toward femvertising and attitude toward brand on forwarding and purchasing intentions. A total of 200 respondents who participated in this study consisted of women and men. Independent t-test and multiple linear regressions were conducted for the data analysis method. The results suggest that high brand-cause fit has a higher effect on attitude toward femvertising and attitude toward brand than low brand-cause fit, positive attitude toward femvertising can build forwarding intention and purchasing intention on consumers, and forwarding intention causes purchasing intention on the advertised brand

1 INTRODUCTION

The existence of the concept of feminism is intended to change the public's perspective on the existence of women, including inappropriate behavior towards them (Hanum, 2018). The concept of feminism has become one of the tools in marketing where the feminist perspective is considered to play an important role and provides many insights related to the gendered nature of the marketing phenomenon (Maclaran, 2012). There is a trend in the marketing industry that known as 'femvertising', which refers to an advertising concept for those who use elements of feminism for empowering women by selling products or services (Ciambriello, 2014).

The element of feminism in advertising is one of the social issues promoted by activists (Kapoor & Munjal, 2019). These social issues in society are raised as a form of brand responsibility by brands and clients (Champlin et al., 2019). The role of attitudes in consumer responses to femvertising and brands has attracted the attention of researchers because attitudes play an essential in understanding consumer behavior (Kapoor & Munjal, 2019).

Specifically, this study focuses on brand-cause fit and its effect on consumer responses. In this study, the following questions emerge to be investigated: What are the differences in attitudes toward brands, attitudes towards femvertising, forwarding intention, and purchase intention caused by brand-cause fit in conditions of low fit femvertising and high fit femvertising? What are the influences of forwarding intentions and purchase intention on consumers influenced by attitudes toward the brand? What are the effects of forwarding intention and purchase intention on consumers influenced by attitudes toward femvertising? This study seeks to examine the effect of brand-cause fit (high vs. low femvertising) on consumer responses, and prove that attitude toward brand and attitude toward femvertising have positive effects on forwarding intention and purchase intention on consumers.

2 LITERATURE REVIEW

2.1 *The role of brand-cause fit*

Globally, brand-cause fit is a concept that combines brands with social issues (Champlin et al., 2019). According to Pracejus & Olsen (2004), Pracejus and Olsen (2004), the match between the brand and the cause could strengthen the effect for marketing related to the causes. The greater familiarity with the cause increases the effect of fit on consumer's attitude resulting corroborate the expectations that consumers have a high evaluation of brands (Zdravkovic et al., 2010).

H1: The average attitude toward the brand in the high fit condition will be higher than the average attitude toward the brand in the low fit condition

H2: The average attitude toward femvertising in the high fit condition will be higher than the average attitude toward femvertising in the low fit condition

H3: The average purchase intention in high fit condition will be higher than the average purchase intention in low fit condition

H4: Forwarding intention in high fit condition will be higher than forwarding intention in low fit condition

2.2 *The effect of consumer attitudes on femvertising on consumer response*

By incorporating elements of feminism, it can help them sell products; it increases consumers' profit and preference. The results of a survey conducted by SheKnows stated that as many as 52% of respondents made purchases caused by messages conveyed by brands through advertisements that depict femvertising messages and as many as 45% of them shared these advertisements with others (Champlin et al., 2019). Consumer attitudes towards advertising are an effective indicator in advertising because consumers' cognitive abilities towards advertising are seen in consumers' thoughts and feelings which in turn will also affect consumer attitudes towards advertising (Ling et al., 2010).

H5: Attitude toward femvertising has a positive effect on forwarding intention

H6: Attitude toward femvertising has a positive effect on purchasing intention

2.3 *The effect of consumer attitudes towards brands on consumer response*

Brand experience varies in excellence and intensity; some brand experiences happen spontaneously, are less reflective, also short-lived than others that happen on purpose and can last a long time. Over time, long-lasting brand experience will affect consumer attitudes in terms of satisfaction and loyalty (Brakus et al., 2009). The number of products and services offered makes it difficult for companies to attract consumers' attention where affects their purchase intention (Kapoor & Munjal, 2019). Therefore, the resulting outcomes will determine consumer attitudes which ultimately affect the subsequent consumer response.

H7: Attitude toward a brand has a positive effect on forwarding intention

H8: Attitude toward a brand has a positive effect on purchasing intention

2.4 *The effect of forwarding intention on purchase intention*

Consumers tend to share messages that they find interesting and entertaining and feel they reflect themselves positively. Meanwhile, consumers' negative attitudes towards messages, or their perception of low quality, will hinder the sharing of messages. Informative advertisements lead to positive word-of-mouth and increase consumers' purchase intentions. On the other hand, creativity in advertisements that leads to word of mouth about advertisements and the product does not affect consumers' purchase intentions (Kapoor & Munjal, 2019).

H9: Forwarding intention has a positive effect on purchase intention on the advertised brand

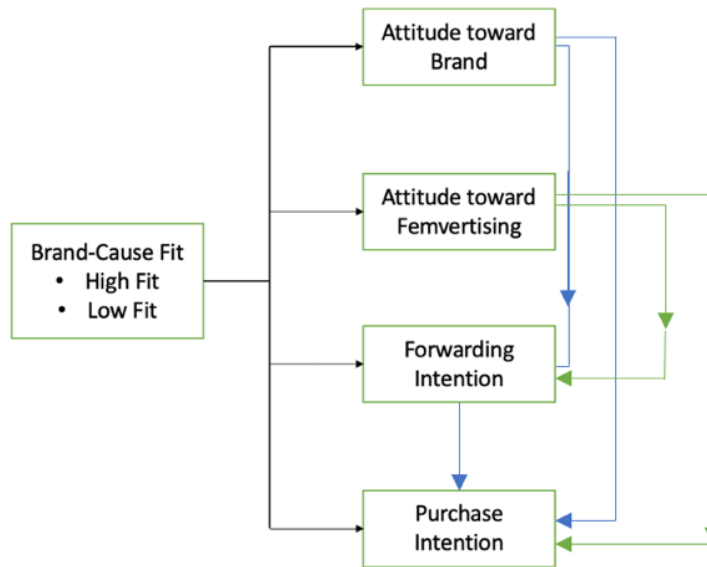


Figure 1. Conceptual Framework

3 RESEARCH METHOD

3.1 Research population

The survey was conducted by taking responses from a total sample of 200 respondents consisting of 100 respondents in the first questionnaire to measure high-fit brand advertising, and 100 respondents in the second questionnaire to measure low fit brand advertising.

3.2 Measures

There are four variables measured in this study using a 7-point Likert scale ranging from “strongly disagree” to “strongly agree”; and a 7-point semantic differential scale. In this study, there are three items from Yasin et al. (2019) were used to measure forwarding intention. Meanwhile, based on Muehling et al. (2014), there are three and five items respectively were used to measure purchasing intention and attitude toward brand. Finally, the three items used to measure the attitude toward femvertising were adapted from Ling et al. (2010).

3.3 Statistical analysis

The data obtained were processed using SPSS software. The independent t-test method was used to test the hypotheses H1 to H4. This test is used to test the average difference of each variable. Meanwhile, to test H5 to H9, multiple linear regression was used. Regression testing is used to test the hypothesis by analyzing the potential relationship between different variables and predicting the value of the response variable based on one or more explanatory variables (Malhotra et al. 2017)

4 RESULTS

The findings from the independent t-test show that attitude toward brand, attitude toward femvertising, forwarding intention, and purchasing intention in high fit conditions were greater than low fit conditions. which confirmed H1 to H4. Even the mean value of high fit conditions was greater than low fit conditions on attitude toward femvertising and attitude toward brand. The significance values for H1 (0.221) and H2 (0.064) were greater than the significant value of 0.05, meaning that those hypotheses were insignificant. Therefore, the average attitude toward the brand and the average attitude toward the femvertising in the high fit condition was not always greater compared to in low fit condition. However, the significant values for H3 (0.012) and H4

(0.028) were greater than the significant value of 0.05, meaning that these hypotheses were significant. In addition, the mean values of forwarding intention and purchase intention in high fit conditions were greater than when in low fit conditions.

Based on the significant value results of testing H5 (0.012) and H7 (0.000), it was found that attitude toward femvertising and attitude toward brand had a positive effect on forwarding intention of consumers. This finding proves that the audience's interest in sharing advertisements or forwards is more easily influenced by their response when they see the impressions and advertising concepts presented. Meanwhile, the significant value results of testing H6 (0.017) but has a negative t value. Therefore, attitude toward femvertising had not positive effect on purchase intention. Lastly, H8 (0.000) and H9 (0.000) show that the values were greater than the significant value (0.05). In other words, attitude toward brand and forwarding intention had a positive effect on purchase intentions.

5 CONCLUSIONS

In general, this study was conducted to determine the effect of brand-cause fit on forwarding intention and purchasing intention on low fit and high fit femvertising in Indonesia. The results show that there are differences in attitude toward brand, attitude toward femvertising, forwarding intention, and purchase intention caused by brand-cause fit in the form of elements of feminism in advertising or what is often referred to as femvertising in conditions of low fit femvertising and high fit femvertising. The regression test shows that attitude toward femvertising and attitude toward brand has a positive effect on forwarding intention. Attitude toward brand and forwarding intention also has a positive effect on purchase intention.

REFERENCE

- Brakus, J. J., Schmitt, B. H., & Zarantonello, L. (2009). Brand Experience: What is It? How is it Measured? Does it Affect Loyalty? *Journal of Marketing*, 73(3), 52–68.
<https://doi.org/10.1509/jmkg.73.3.052>
- Champlin, S., Sterbenk, Y., Windels, K., & Poteet, M. (2019). How brand-cause fit shapes real world advertising messages: a qualitative exploration of 'femvertising.' *International Journal of Advertising*, 38(8), 1240–1263. <https://doi.org/10.1080/02650487.2019.1615294>
- Kapoor, D., & Munjal, A. (2019). Self-consciousness and emotions driving femvertising: A path analysis of women's attitude towards femvertising, forwarding intention and purchase intention. *Journal of Marketing Communications*, 25(2), 137–157. <https://doi.org/10.1080/13527266.2017.1338611>
- Ling, K. C., Piew, T. H., & Chai, L. T. (2010). The Determinants of Consumers Attitude Towards Advertising. *Canadian Social Science*, 6(4), 114–126. www.cscanada.org
- Malhotra, N. K., Nunan, D., & Birks, D. F. (2017). *Marketing research: An applied approach* (Fifth Edition). New York: Pearson.
- Muehling, D. D., Sprott, D. E., & Sultan, A. J. (2014). Exploring the Boundaries of Nostalgic Advertising Effects: A Consideration of Childhood Brand Exposure and Attachment on Consumers' Responses to Nostalgia-Themed Advertisements. *Journal of Advertising*, 43(1), 73–84.
<https://doi.org/10.1080/00913367.2013.815110>
- Pracejus, J. W., & Olsen, G. D. (2004). The role of brand/cause fit in the effectiveness of cause-related marketing campaigns. *Journal of Business Research*, 57(6), 635–640.
[https://doi.org/10.1016/S0148-2963\(02\)00306-5](https://doi.org/10.1016/S0148-2963(02)00306-5)
- Yasin, M., Porcu, L., & Liébana-Cabanillas, F. (2019). The Effect of Brand Experience on Customers' Engagement Behavior within the Context of Online Brand Communities: The Impact on Intention to Forward Online Company-Generated Content. In *Sustainability* (Vol. 11, Issue 17).
<https://doi.org/10.3390/su11174649>
- Zdravkovic, S., Magnusson, P., & Stanley, S. M. (2010). Dimensions of fit between a brand and a social cause and their influence on attitudes. *International Journal of Research in Marketing*, 27(2), 151–160. <https://doi.org/10.1016/j.ijresmar.2010.01.005>

The Mediating Effect of Organizational Meaningfulness and Time Pressure on the Relationship Between Work From Home and Work-Life Conflict

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ABSTRACT: The pandemic urged several drastic measures, one of which include the work from home policy. This working arrangement shift affected organizations and their workers. Therefore, this study aims to investigate the effect of work from home on work-life conflict, with organizational meaningfulness and time pressure as mediators on non-start-up private-sector employees in Jakarta Metropolitan Area. The data were collected through online surveys from 224 non-start-up private-sector employees in Jakarta. Furthermore, structural equation modeling (SEM) was used to analyze the data. The results showed that work from home has a direct and significant negative effect on work-life conflict. Also, time pressure partially mediated the relationship between work from home and work-life conflict, while organizational meaningfulness was not a mediator. This study highlights whether companies need to develop certain policies related to the practice of work from home, especially regarding the role of time pressure as a mediator. The absence of time pressure will allow the employees to spend their limited resources fairly on both work and family demands. This is essential to achieve high work quality when employees have to work from home.

1 INTRODUCTION

The World Health Organization declared the novel coronavirus outbreak a pandemic in mid-March 2020. When the lockdowns took effect, a sizable portion of the workforce was instructed to remotely work from home (World Health Organization, 2020). Prior to Covid-19, Indonesia's workers were not familiar with the work from home concept. This is evident from the number of telecommuters in Indonesia before the pandemic, which was merely 16% of workers (Ipsos, 2011). The few challenges in implementing work from home in Indonesia include that the concept has not been widely accepted by the society. There are also challenges in information and communication technologies infrastructure, such as limited coverage and low internet service speed (Suarlan, 2018). The employees in established companies, in particular, need more effort to adapt to changes, in contrast to start-ups that are more flexible and agile (Aghina & De Smet, 2015). Furthermore, the working arrangement shift to working from home inadvertently affected work-family relationships, leading to work-life conflict (Bouziri et al., 2020). Studies consistently demonstrate the links between work-life conflict and a range of unfavorable outcomes such as lower work engagement (Yucel & Fan, 2019) and worker performance (Karakaş & Tezcan, 2019).

A study with the 48-country global sample found that 37% of respondents reported experiencing work-life conflict (Hill et al., 2010). Also, employees in Asia stated suffering higher levels of family-work conflict than those in Western countries (Allen et al., 2015). Meanwhile, in Indonesia, specifically in Jakarta Metropolitan Area, about 51% of the respondents perceived high work-family conflict (Efi & Parahyanti, 2021).

Organizational meaningfulness and time pressure influenced the relationship between work from home and work-life conflict. The work from home policy prevents remote employees from making coherent sense of their jobs, tasks, and relationships in the workplace. Furthermore, reduced organizational meaningfulness impairs employees' capacity to manage the interaction of work-related obligations and personal concerns, thereby increasing the perceptions of work-life conflict (Palumbo et al., 2020). Work from home increases time pressure because teleworkers

work longer hours, depleting employees' relatively limited time and resources. Therefore, employees frequently have fewer resources available in the family domain, contributing to the rise of work-life conflict (Darouei & Pluut, 2021).

2 LITERATURE REVIEW AND RESEARCH HYPOTHESIS

Workers who implement telework are those who work in their homes, which serves as an alternative to their usual place of employment, and they use personal electronic devices as part of the job (International Labour Organization, 2020). The work-life conflict is a form of inter-role conflict that occurs due to the emergence of competing forces from several roles. There are two dimensions to work-life conflict, namely work and family demand. The work demand refers to pressures arising from work overload and time constraints that lead to work-to-family conflict. Meanwhile, family demand refers to time constraints associated with household and childcare, which results in family-to-work conflict (Netemeyer et al., 1996). Palumbo et al. (2021) defined organizational meaningfulness as employees' perceptions of the meaningfulness of their work arrangements, their relationship to goal setting participation, and opportunities to idea application. Time pressure is defined as the degree to which people feel rushed or the perception of being rushed each day. Furthermore, it is concerned with whether individuals believe they have enough time to accomplish what they need or want (Rose et al., 2013).

Palumbo et al. (2020) indicated that home-based telecommuting might exacerbate work-life conflicts as a result of the blurring of work and personal life. Soft tools such as organizational meaningfulness and well-being act as a buffer between working from home and work-life conflicts, mitigating the detrimental effects of working from home on work-life balance. Furthermore, a study conducted by Darouie & Pluut (2021) found that when workers work from home, it influenced their felt time pressure and, hence, on the occurrence of work-life conflict.

The following hypotheses were created in this study based on literature surveys and previous literature:

- H1: Work from home has a positive effect on work-life conflict
- H2: Work from home has a negative effect on organizational meaningfulness
- H3: Work from home has a positive effect on time pressure
- H4: Organizational meaningfulness has a negative effect on work-life conflict
- H5: Time pressure has a positive effect on work-life conflict
- H6: Organizational meaningfulness mediates the relationship between work from home and work-life conflict
- H7: Time pressure mediates the relationship between work from home and work-life conflict

3 RESEARCH METHODS

Data were collected from 224 employees and the criteria include respondents that have worked on non-start-up private companies in Jakarta Metropolitan Area, the company where the respondents work implements work from home policy, both full-time and part-time, those that have worked at the company from before the Covid-19 pandemic (before March 2020), and those that never had to work from home before the pandemic (before March 2020). The convenience sampling technique was used in this study, and data were collected through online surveys from October to November 2021. Furthermore, the self-administered questionnaires were distributed through social media and social messaging applications. This study will evaluate four variables using a seven-point Likert scale ranging from "strongly disagree" to "strongly agree". The hypothesis was tested through Structural Equation Modeling (SEM) using Lisrel software.

4 RESULTS

The findings showed that work from home significantly decreased work-life conflict, therefore H1 cannot be accepted. This result is different from a previous study by Palumbo et al. (2020) and Wheatley (2012), which stated that the continuity of personal life and work led to work-life conflict due to the difficulty of time allocation. However, in this study, it is known that employees who work in the private sector in Jakarta Metropolitan Area tend to have the ability to manage

time when working from home. This led to lower work-life conflict. This finding is in line with Abendroth & Reimann (2018) and Delanoeije & Verbruggen (2020), which stated that work from home could reduce work-family conflict.

Furthermore, this study found that work from home significantly increased organizational meaningfulness, hence H2 cannot be accepted. This finding does not support previous study by Palumbo et al. (2020), however, it is in line with Daulay & Mustika (2020) which found that positive experiences while working from home can increase feelings of meaning in work and workplace. The third result found that work from home significantly decreased time pressure, therefore H3 cannot be accepted. This result differs from Liebermann et al. (2021), which stated that employees who work from home have a high level of time pressure. Nevertheless, the result is supported by Naotunna & Zhou (2021), who stated that working from home can significantly reduce time pressure due to flexibility in managing work schedules and time saved from not transporting to the office.

The subsequent result showed that organizational meaningfulness perceived by employees does not significantly affect the level of work-life conflict, hence H4 cannot be accepted. The results of this study are different from Palumbo et al. (2020) which suggested that organizational meaningfulness has a negative effect on work-life conflict. Moreover, it was found that time pressure significantly increased work-life conflict, therefore H5 can be accepted. The result of this study is supported by Darouei & Pluut (2021), which indicated that time pressure has a positive and significant effect on work-life conflict. This is because resources, such as time, attention, and energy, are limited. When it has been spent in one domain, then these resources become unavailable for other domains resulting in the implementation of homework being hampered, consequently, work-life conflicts increase (Ten Brummelhuis & Bakker, 2012).

Based on the results of hypothesis testing, it is proven that there is no mediating role of organizational meaningfulness on the relationship between work from home and work-life conflict, therefore H6 cannot be accepted. The result of this study is different from Palumbo et al. (2020), which suggested that organizational meaningfulness mediates the effect of work from home on work-life conflict. However, the study found that the relationship between work from home and work-life conflict is mediated by time pressure, and H7 can be accepted. The result of the hypothesis testing is in accordance with Darouei & Pluut (2021), which suggested that time pressure acts as a mediator between work from home and work-life conflict. In this study, employees who work in the private sector in Jakarta Metropolitan Area have the ability to manage time while working from home. This in turn will reduce the perception of working under time pressure and give employees the opportunity to fulfill family responsibilities, therefore reducing conflicts between work and family.

5 CONCLUSIONS

It can be concluded that working from home significantly decreased work-life conflict. The more the work from home, the lower the work-life conflict. Moreover, from this study, it is known that time pressure elucidates the negative relationship between work from home and work-family conflict. Meanwhile, organizational meaningfulness was no mediator.

This can serve as a basis for the management of non-start-up private companies in Jakarta Metropolitan Area to offer flexible work arrangements to its employees, such as working from home. When implementing the policy, management is expected to lessen employees' sense of time pressure. This can be accomplished through the supervisor of each employee by delegating work autonomy. This will allow them to determine their most productive times and work rhythms that suit their preferences. Also, work assignments need to be managed in a way that will not create unnecessary pressure or waste time, therefore workers feel they have enough time to rest and pursue personal and family interests.

REFERENCES

- Abendroth, A.-K., & Reimann, M. (2018). Telework and work-family conflict across workplaces: Investigating the implications of work-family-supportive and high-demand workplace cultures. In *The work-family interface: Spillover, complications, and challenges*. Emerald Publishing Limited.

- Aghina, W., & De Smet, A. (2015). The keys to organizational agility. In *McKinsey Publishing*.
<https://www.mckinsey.com/business-functions/organization/our-insights/the-keys-to-organizational-agility>
- Allen, T. D., French, K. A., Dumani, S., & Shockley, K. M. (2015). Meta-analysis of work–family conflict mean differences: Does national context matter? *Journal of Vocational Behavior*, 90, 90–100.
- Bouziri, H., Smith, D. R., Descatha, A., Dab, W., & Jean, K. (2020). Working from home in the time of covid-19: How to best preserve occupational health? *Occupational and Environmental Medicine*, 77(7), 509–510.
- Darouei, M., & Pluut, H. (2021). Work from home today for a better tomorrow! How working from home influences work-family conflict and employees' start of the next workday. *Stress and Health*.
- Daulay, S. F., & Mustika, M. D. (2021). Working from home during the COVID-19 pandemic: What is the impact on employees' psychological meaningfulness, safety and availability? *Humaniora*, 12(3).
- Delanoeije, J., & Verbruggen, M. (2020). Between-person and within-person effects of telework: A quasi-field experiment. *European Journal of Work and Organizational Psychology*, 29(6), 795–808.
- Efi, G. O., & Parahyanti, E. (2021). Predictors of workplace well-being for dual-earner couples during Covid-19 pandemic. *Gadjah Mada Journal of Psychology (GamaJoP)*, 7(1), 33–47.
<https://doi.org/10.22146/GAMAJOP.59844>
- Hill, E. J., Erickson, J. J., Holmes, E. K., & Ferris, M. (2010). Workplace flexibility, work hours, and work-life conflict: Finding an extra day or two. *Journal of Family Psychology*, 24(3), 349.
- International Labour Organization. (2020, June 5). *Defining and measuring remote work, telework, work at home and home-based work* [Publication]. http://www.ilo.org/global/statistics-and-databases/publications/WCMS_747075/lang--en/index.htm
- Ipsos. (2011). Telecommuting: Citizens in 24 countries assess working remotely for a total global perspective. In *Ipsos Global Advisor*.
https://www.ipsos.com/sites/default/files/news_and_polls/2012-01/5486-ppt.pdf
- Karakaş, A., & Tezcan, N. (2019). The relation between work stress, work-family life conflict and worker performance: A research study on hospitality employees. *European Journal of Tourism Research*, 21, 102–118.
- Liebermann, S. C., Blenckner, K., Diehl, J.-H., Feilke, J., Frei, C., Grikscheit, S., Hünsch, S., Kohring, K., Lay, J., Lorenzen, G., & Reinhardt, J. (2021). Abrupt Implementation of Telework in the Public Sector During the COVID-19 Crisis. *Zeitschrift Für Arbeits- Und Organisationspsychologie A&O*, 65(4), 258–266. <https://doi.org/10.1026/0932-4089/a000367>
- Naotunna, N., & Zhou, E. (2021). Telework and creativity of professional employees: The mediating roles of autonomy and time Pressure. *Innovation*, 7.
- Netemeyer, R. G., Boles, J. S., & McMurrian, R. (1996). Development and validation of work–family conflict and family–work conflict scales. *Journal of Applied Psychology*, 81(4), 400–400.
- Palumbo, R., Flamini, G., Gnan, L., & Pellegrini, M. M. (2021). Looking for meanings at work: Unraveling the implications of smart working on organizational meaningfulness. *International Journal of Organizational Analysis, ahead-of-p(ahead-of-print)*. <https://doi.org/10.1108/IJOA-04-2021-2708>
- Palumbo, R., Manna, R., & Cavallone, M. (2020). Beware of side effects on quality! Investigating the implications of home working on work-life balance in educational services. *The TQM Journal*.
- Rose, J., Hewitt, B., & Baxter, J. (2013). Women and part-time employment: Easing or squeezing time pressure? *Journal of Sociology*, 49(1), 41–59.
- Suarlan, S. (2018). Teleworking for Indonesian civil servants: Problems and actors. *Jurnal Ilmu Administrasi dan Organisasi*, 24(2), 5.
- Ten Brummelhuis, L. L., & Bakker, A. B. (2012). A resource perspective on the work–home interface: The work–home resources model. *American Psychologist*, 67(7), 545–545.
- Wheatley, D. (2012). Work-life balance, travel-to-work, and the dual career household. *Personnel Review*.
- World Health Organization. (2020). *Virtual press conference on COVID-19*.
<https://www.who.int/director-general/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19---11-march-2020>
- Yucel, D., & Fan, W. (2019). Work–family conflict and well-being among German couples: A longitudinal and dyadic approach. *Journal of Health and Social Behavior*, 60(3), 377–395.

Traveling in Pandemic: An Analysis from the Perspective of Protection Motivation Theory

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ABSTRACT: Coronavirus disease 2019 (COVID-19) is a global pandemic caused by the virus "severe acute respiratory syndrome coronavirus 2" (SARS-CoV-2) that poses a serious threat to the global economy and human life. It has also jolted the tourism industry due to several government-imposed regulations to reduce the frequency of occurrences, such as lockdowns, population mobility restrictions, and flight bans. Furthermore, the implementation of these regulations, combined with the severity and complexity of COVID-19, had a significant impact on travel behavior. Given the current situation, technology-mediated service delivery, such as virtual reality (VR) tour, offers a viable option. Therefore, this study aims to determine the influence of the COVID-19 pandemic on how tourists intend to use virtual reality (VR) and in-person tours using the Protection Motivation Theory perspective. In light of the COVID-19 vaccine development, this study also intends to examine the vaccine's potential in moderating the pandemic influence on travel intentions. The 360 samples were acquired by online surveys using a non-probability and purposive sampling approach, and then analyzed using partial least squares structural equation modeling (PLS-SEM). The findings show that visitors' COVID-19 perceived susceptibility and self-efficacy increase their social distancing behavior. As a consequence, social distancing increases visitors' intent to utilize virtual reality while decreasing in-person tours during the pandemic, increases visitors' demand for advanced virtual tours, and raises visitors' advocacy intents. The study discovered that COVID-19 vaccination confidence, both in-person and on VR-based tours, cannot operate as a moderating variable between social distancing and travel intention.

1 INTRODUCTION

The coronavirus disease 2019 (COVID-19) has become a global pandemic affecting the global economy and human lives. To control the number of cases, governments around the globe have implemented a wide range of policies ranging from lockdowns to restrictions on population mobility, curfews, closing national borders, prohibiting entry and exit, visa restrictions, and flight suspensions (Kiernan & Devita, 2020). However, the implementation of these regulations has greatly affected the tourism sector (Zenker & Kock, 2020).

Zheng et al. (2021) stated that outdoor activities, travel, and crowding were all considered high-risk activities to perform during the COVID-19 pandemic, due to the anxiety of getting infected, as well as the fear of encountering unscrupulous tourists. Altogether, these factors have undoubtedly contributed to the sharp fall in travel demand. Furthermore, travel and tourist businesses have experienced huge losses due to the COVID-19 pandemic, while some nations' tourist attractions are presently working to restore their clientele after being closed during the lockdown (Itani & Hollebeek, 2021).

Although tourism is susceptible to crises and calamities, data suggests that COVID-19, which is defined as an amalgamation of "a natural disaster, as well as a socio-political, economic, and a tourism demand crisis," has disrupted tourist activities than ever before (Zenker & Kock, 2020). Consequently, it is essential to analyze the impact of the pandemic on the travel and tourism industry, as well as strategies to transform this disruption into possibilities for advancement (Sigala, 2020). According to a previous study, customers' travel/tourism-related mindset is

changing, particularly by avoiding crowded places in favor of more isolated and tranquil choices (Zenker & Kock, 2020).

Meanwhile, virtual reality (VR), defined as the “computer-mediated, interactive environments capable of offering sensory feedback to engage consumers and drive desired consumer behaviors,” (Hollebeek et al., 2020), is increasingly being used to create personalized as well as convenient virtual site visits during the pandemic. Although VR was formerly considered a threat to the travel/tourism industry, it now presents a significant potential for attraction sites to overcome the pandemic's obstacles (Itani & Hollebeek, 2021).

2 LITERATURE REVIEW

2.1 Protection Motivation Theory

The Protection Motivation Theory (PMT) was introduced by Rogers in 1975, and has been widely adopted as a framework for prediction and intervention in health-related behavior (Milne et al., 2000). Threat severity and susceptibility are the main assessment features proposed in PMT (Rogers, 1983). Severity represents the seriousness of the danger that can be posed by the threat, while susceptibility refers to the perceived risk of a person being affected. The perceived threat of a pandemic is usually positively correlated with the global adoption of virus prevention measures (Dryhurst et al., 2020). Currently, social distancing is addressed as one form of protection, but consumer attitudes vary between individuals. Protection motivation theory also identifies the major coping assessment dimensions of response efficacy and self-efficacy (Rogers, 1983). According to the meta-analysis conducted by Milne et al. (2000) and Floyd et al. (2000), response efficacy and self-efficacy have a positive effect on individual protective behavior.

2.2 The Effects of Social Distancing and Vaccine Confidence on Traveling Intention

Social distancing has revolutionized consumers' perceptions and participation in public activities (de Vos, 2020). To stay connected with others, consumers are increasingly adopting technology-based virtual interactions during the pandemic (Hollebeek et al., 2021). Subsequently, virtual sites allow consumers to cope with the situation, fulfilled their visiting needs, and fight boredom (Bright, 2020). Itani and Hollebeek (2021) stated that the higher level of social distancing applied by consumers affects the advocacy intentions to promote VR tours and increases the need for advancements. Besides, vaccine doses compliance technically gives tourists greater freedom to travel (WHO, 2020), although the level of confidence in the vaccine might vary between individuals.

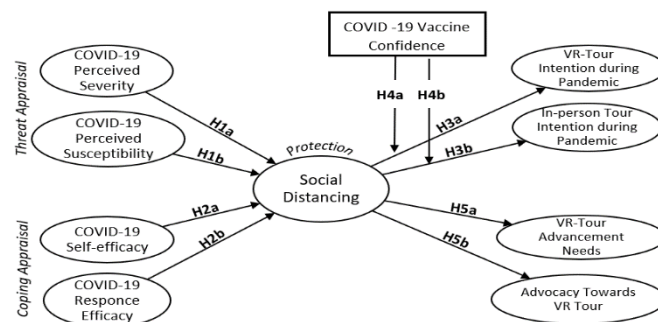


Figure 1. Conceptual Model.

3 STUDY METHOD

3.1 Research Population

This study's population consists of Indonesians with various demographic and geographical backgrounds, aged 18 and above. Meanwhile, a total of 360 people satisfied the prerequisites after passing the screening questions.

3.2 Measures

Primary data were acquired directly from the participants through a series of structured questionnaires, which were scored on a seven-point Likert-based scale. Before collecting the primary data, this questionnaire was verified using a pre-test and passed the validity, subsequently reliability test was conducted. Each participant was asked to rate their preferences as 1 = strongly disagree/very unlikely to 7 = strongly agree/very likely. Meanwhile, the study instrument was derived from previous studies linked to the investigation of the COVID-19 Pandemic influence on travel intention and confidence in vaccination (Itani & Hollebeek, 2021; Williams et al., 2021).

3.3 Statistical Analysis

Before proceeding with the procedure, the obtained data were sorted and prepared, then PLS-SEM (Partial Least Squares Structural Equation Modeling) was used to assess the study's hypothesis. The PLS path analysis was carried out using 5000 bootstrapped subsamples, which is appropriate for analyzing relatively small sample sizes (Hair et al., 2019).

4 RESULTS AND DISCUSSIONS

Of the total respondents, 53.3% were female and the rest were male, while, the population was dominated by the young adult age group of 25-34 years with a total of 150 respondents. 233 were single, and the majority namely 154 had a bachelor's degree. Furthermore, employees at private enterprises were higher in terms of employment type with a total of 135 respondents, followed by college students by 54. The respondents' domicile origin varied from the Indonesia geographical area due to the usage of online survey methods that eliminate geographical constraints.

Table 1. Hypothesis testing results.

Hypotheses	(O)	(M)	STDEV	T Statistics	P Values
H1a: Consumers' perceived severity of COVID-19 positively affects social distancing behavior.	0.064	0.070	0.068	0.932	0.176
H1b: Consumers' perceived susceptibility of COVID-19 positively affects social distancing behavior.	0.315	0.313	0.076	4,158*	0.000*
H2a: Consumers' perceived self-efficacy significantly affects social distancing behavior.	0.418	0.417	0.058	7,236*	0.000*
H2b: Consumers' perceived response efficacy towards COVID-19 coping response affects social distancing behavior.	-0.013	-0.012	0.050	0.264	0.396
H3a: Consumers' adopted social distancing level positively influences their intention to use virtual reality-based attraction site tours during the pandemic.	0.132	0.133	0.064	2,067*	0.019*
H3b: Consumers' adopted social distancing level negatively affects their intention to undertake in-person attraction site tours during the pandemic.	-0.286	-0.286	0.055	5,208*	0.000*
H4a: The perceived benefit of COVID-19 vaccination reduces the positive effect of social distancing on the intention to conduct virtual reality-based attraction site tours during the pandemic.	0.021	0.024	0.032	0.660	0.255
H4b: The perceived benefit of COVID-19 vaccination reduces the negative effect of social distancing on the intention to conduct in-person attraction site tours during the pandemic.	-0.025	-0.038	0.036	0.698	0.243
H5a: Consumers' adopted social distancing levels significantly influenced their intention to use	0.184	0.188	0.049	3,747*	0.000*

more advanced virtual reality-based site tours during the pandemic.					
H5b: Consumers' adopted social distancing level significantly influences their intention to recommend virtual reality-based site tours to others.	0.188	0.190	0.054	3,474*	0.001*

Based on the significance analysis results obtained using the two-tailed and one-tailed direct effect testing, six hypotheses namely H1b, H2a, H3a, H3b H5a, H5b, out of a total of ten proposed were declared significant (supported) because they met the T statistics of > 1.96 or P-Values of < 0.05 and have results consistent with previous studies by Itani & Hollebeek (2021). However, the study found that vaccine confidence is not suitable as a moderating variable between social distancing and travel intention, both for in-person and on VR-based tours.

5 CONCLUSIONS

COVID-19 perceived susceptibility and self-efficacy have a significant positive effect on social distancing behavior. The higher the level of social distancing application, the higher the significant effect on increasing the intention of the VR Tour during the pandemic and vice versa. Furthermore, the empirical findings indicate that the respondents showed positive intentions towards VR-based tours during the pandemic, and also prefer more sophisticated rather than basic tours, which provide a more immersive experience. The level of social distancing implementation also has a significant effect on the need for advancing and promoting the VR-Tour.

REFERENCES

- Bright, M. (2020). *amazing virtual field trips to aquariums, museums and Mars*.
- de Vos, J. (2020). The effect of COVID-19 and subsequent social distancing on travel behavior. *Transportation Research Interdisciplinary Perspectives*, 5, 100121.
- Dryhurst, S., Schneider, C. R., Kerr, J., Freeman, A. L. J., Recchia, G., van der Bles, A. M., Spiegelhalter, D., & van der Linden, S. (2020). Risk perceptions of COVID-19 around the world. *Journal of Risk Research*, 23(7–8), 994–1006.
- Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, 31(1).
- Hollebeek, L. D., Clark, M. K., Andreassen, T. W., Sigurdsson, V., & Smith, D. (2020). Virtual reality through the customer journey: Framework and propositions. *Journal of Retailing and Consumer Services*, 55, 102056.
- Hollebeek, L. D., Smith, D. L. G., Kasabov, E., Hammedi, W., Warlow, A., & Clark, M. K. (2021). Customer brand engagement during service lockdown. *Journal of Services Marketing*, 35(2), 201–209. <https://doi.org/10.1108/JSM-05-2020-0199>
- Itani, O. S., & Hollebeek, L. D. (2021). Light at the end of the tunnel: Visitors' virtual reality (versus in-person) attraction site tour-related behavioral intentions during and post-COVID-19. *Tourism Management*, 84, 104290. <https://doi.org/10.1016/j.tourman.2021.104290>
- Kiernan, S. & DeVita, M. (2020). *Travel restrictions on China due to COVID-19*. <https://www.thinkglobalhealth.org/article/travel-restrictions-china-due-covid-19>
- Milne, S., Sheeran, P., & Orbell, S. (2000). Prediction and Intervention in Health-Related Behavior: A Meta-Analytic Review of Protection Motivation Theory. *Journal of Applied Social Psychology*, 30(1), 106–143. <https://doi.org/10.1111/j.1559-1816.2000.tb02308.x>
- Rogers, R. W. (1983). Cognitive and psychological processes in fear appeals and attitude change: A revised theory of protection motivation. *Social Psychophysiology: A Sourcebook*, 153–176.
- Sigala, M. (2020). Tourism and COVID-19: Impacts and implications for advancing and resetting industry and research. *Journal of Business Research*, 117, 312–321.
- WHO. (2020, April 24). "Immunity passports" in the context of COVID-19. <https://www.who.int/news-room/commentaries/detail/immunity-passports-in-the-context-of-covid-19>
- Williams, N. L., Nguyen, T. H. H., del Chiappa, G., Fedeli, G., & Wassler, P. (2021). COVID-19 vaccine confidence and tourism at the early stage of a voluntary mass vaccination campaign: a PMT segmentation analysis. *Current Issues in Tourism*, 1–15.
- Zenker, S., & Kock, F. (2020). The coronavirus pandemic – A critical discussion of a tourism research agenda. *Tourism Management*, 81, 104164.
- Zheng, D., Luo, Q., & Ritchie, B. W. (2021). Afraid to travel after COVID-19? Self-protection, coping and resilience against pandemic 'travel fear.' *Tourism Management*, 83, 104261.

The Effects of Transformational Leadership on Self-Leadership and Perceived Career Success in Banking Sector

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ABSTRACT: The advancement of information and communication technology has become a powerful motor for the financial system's stability and responsiveness to external challenges. Inability of traditional banks to compete in digital services due to active growth can increase the evidence of technology. This has led to the evolution of consumer behavior, and growth of employee stress levels. Therefore, job embeddedness needs to be enhanced to retain personnel, and this can be accomplished through greater self-leadership tactics and psychological resources. The study aims to examine the influence of transformational leadership on self-leadership and perceived career success by using a quantitative approach to focus on job embeddedness as a mediator. Furthermore, a purposive sampling method was used to obtain 716 bank workers, while the AMOS program used structural equation modeling as the analytical approach to establish that transformational leaders boost perceived career success. Job embeddedness significantly impacted self-leadership and buffers the relationship between transformational leadership and perceived career success.

1 INTRODUCTION

The advancement of information and communication technology has ushered in a new industrial revolution of Industry 4.0 (Tsindeliani, Proshunin, Sadovskaya, Popkova, Davydova, & Babayan, 2021). The transition process stimulates countries to develop and implement changes to their organizations' structure, process, function, and business model through the adoption of digital technology (Kozanoglu & Abedin, 2020; Matt, Hess & Benlian, 2015; Sahu, Deng & Molla, 2018). Meanwhile, the active expansion of the Financial Technology industry in 2008 showed that the financial sector was one of the first to be impacted by digital transformation in the banking sector. Technological advancements have become a significant driver of financial system innovation, or the capacity to react to external forces without slowed down by structural change and competitiveness (Otoritas Jasa Keuangan, 2018). The influence of technology becomes more apparent when traditional banks cannot resist the aggressive development of digital banks to compete in the services market. Banking development needs numerous supporting instruments, such as leadership and change management patterns. The executives should continue developing their leadership talents and altering their attitudes and behaviors to become more flexible.

Meanwhile, the bank should be established as an adaptive organization capable of achieving its objectives. The quality and quantity of human capital are the primary impediments to increasing competitiveness and transforming the digital banking business. Customer behavior has evolved as a consequence, and worker anxiety has escalated. Therefore, the banking sector should promote work engagement to retain staff, which may be accomplished by strengthening self-leadership tactics and psychological resources. This study examines the influence of transformational leadership on self-leadership and perceived career success, focusing on job embeddedness as a mediator.

2 LITERATURE REVIEW

Organizational Behavior is the study of how individuals behave in a work setting to understand and manage employees (Kreitner and Kinicki, 2013). In this period of free competition, many

businesses are fighting to increase organizational performance to sustain their presence as the market evolves. This shift significantly influences the organization (Wood; Porras & Robertson in Gomes, 2009), and it is characterized as a strategic change or transformation in the structure, human culture, or technology. Therefore, transformational leadership is a necessary adaptation and workforce engagement (Wang & Blanc, 2017). According to Lan and Chen's (2020) study, transformational leadership may directly influence workers' environment and psychological resources to improve employee career adaptability. Employees may also increase their self-development, positively influencing their job performance. Individuals are rooted in organizations due to a thorough grasp of their job and the organization's strategy to achieve personal objectives that are more approachable. According to Afsar and Badir (2016), job embeddedness helps people grow professionally and achieve personal goals that contribute to perceived career success. Furthermore, Wang (2013) stated that the views of career success are influenced by an emphasis on subjective evaluations, which describe employee perspectives and final objectives better than metrics. Self-leadership is the process of developing talents that begin with being interested in the accomplishment of people and their contribution to influence workers through communication, emotion, and conduct (Browning, 2018). This is significant because it has a favorable influence on team performance, business management, and the entire company (Trusler, 2018).

3 RESEARCH METHODS

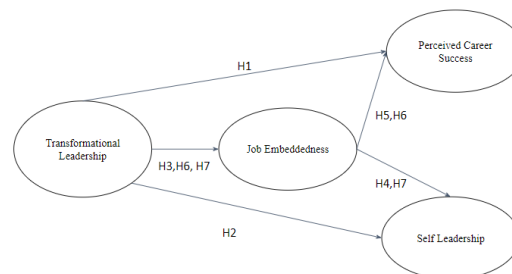


Figure 1. Research model.

The samples consisted of employees working in Indonesian banks, and the techniques adopted were the non-probability and purposive sampling methods. The sampling criteria are (1) employees of banks in Indonesia, (2) having a direct supervisor, and co-workers (3) who have worked for at least one year. This study collected data from 716 employees working in Banks using an online survey and a self-administered questionnaire distributed through social media and messaging applications. The variables to be tested were measured using a 7-point Likert scale with (1) strongly disagree until (7) strongly agree. This study selected structural equation modeling (SEM) to evaluate the research models and proposed hypotheses. The structural model was analyzed using the AMOS 23 to estimate the equation modeling.

4 RESULTS

This study analyzed 716 respondents who met preset criteria, specifically 51.6 percent of responders are women, while males made up 48.4 percent. Subsequently, 72.5 percent of respondents were aged 17–28 years, and 91 percent had a bachelor's degree. The respondents who work for traditional banking organizations account for 77 percent of the total, followed by Islamic banks workers, accounting for 23 percent. Respondents employed by state banks led with 69 percent, followed by national private banks workers with 27 percent, and those employed by national private and international banks with 4 percent.

4.1 Measurement model

According to the findings of confirmatory factor analysis, each indicator has a standardized loadings value larger than 0.5 and an AVE value greater than 0.5. Furthermore, each variable has a build reliability value greater than 0.6, and these indications are very reliable. The measuring model's validity and reliability requirements are satisfactory. Therefore, this supports the measurement model's goodness-of-fit criteria.

4.2 Hypothesis testing and discussion

The study tested the proposed hypotheses with SEM-AMOS. The results show that most hypotheses support the relationship between constructs in the research model, as shown in Table 1.

Table 1. Hypothesis testing results.

Hypotheses	SLF	T-Value	P-Value	Results
H1: Transformational leadership has a significantly positive effect on perceived career success	0,364	9,117	***	Supported
H2: Transformational leadership has a significantly positive effect on self-leadership	0,387	11,825	***	Supported
H3: Transformational leadership has a significantly positive effect on job embeddedness	0,739	13,874	***	Supported
H4: Job embeddedness has a significantly positive effect on self-leadership	0,104	6,439	***	Supported
H5: Job embeddedness has a significantly positive effect on perceived career success	0,221	7,697	***	Supported

First, transformative leadership has a significant and positive impact on perceived career success. According to Al-Ghazali's (2020) study, transformational leadership defines their followers' job obligations as identity-affirming activities through individual consideration and influence values to balance work and non-work activities of employees. Also, the stimulation of workers' intellectual ability with additional effort adds to the sense of a successful profession.

Second, transformational leadership has a significant and beneficial impact on self-leadership. According to Harunavamwe (2020), collecting and increasing internal and occupational resources from psychological capital, self-leadership, and job embeddedness substantially impacts job engagement and demands' buffering effects.

Third, transformational leadership has a significant positive impact on job embeddedness. The finding is consistent with a previous study by Khalid, Mushtaq, Khan, and Mahmood (2021), which found that transformational leadership affects employee job embeddedness. The distinctive characteristics can act as a source of construction in establishing employee relationships with their work.

Fourth, job embeddedness has a significant and favorable influence on self-leadership. According to Harunavamwe (2020), the self-leadership model fosters psychological capital and maintains strong connections and fit (job embeddedness) to build an engaged workforce.

Fifth, job embeddedness influences perceived career success positively and substantially. It helps employees grow professionally and attain personal objectives that contribute to perceived career success, similar to the earlier research by Afsar and Badir (2016).

The sixth and seventh hypotheses propose that job embeddedness mediates the link between transformational leadership, self-leadership, and perceived career success, as shown in Table 2.

Table 2. Hypothesis testing results.

Hypotheses	a	b	SE A	SE B	T-Value	P-Value	Results
H6: Transformational leadership through job embeddedness has effect on perceived career success	0,739	0,221	0,053	0,029	6,73355	0,00	Supported
H7: Transformational leadership through job embeddedness has a effect on self-leadership	0,739	0,104	0,053	0,013	5,89131	0,00	Supported

Job embeddedness is a crucial mediator of transformational leadership, self-leadership, and perceived career success. The findings are similar to the earlier study by Al-Ghazali (2020), which found that embedded workers believe their careers are progressing in the appropriate direction and are consequently happy with their successes. A balance is struck in work-life conflicts When an employee's values and business ideals are more congruent. This is corroborated by a study conducted by Stumpf (2014), where individuals with more work participation are more inclined to move professions or organizations and are more likely to advance in their careers. Therefore, this study demonstrates that banking workers with transformational leaders have strong self-leadership and perceived career success, which influences their performance through the job embeddedness supplied by the organization.

5 CONCLUSION

Transformational leaders enhance their followers' perceptions of professional success. The effect on self-leadership and perceived career success, with job embeddedness as a mediator variable, concluded that all hypotheses are proven for employees working in banking companies for at least one year and have direct supervisors and co-workers.

The managerial relevance is that organizations should build human resource management programs focused on increasing self-leadership in transformational leadership and organizational networks that foster managers' and workers' freedom of speech. However, this study focuses only on banking personnel and conducts cross-sectional research due to limited resources and time. A future study may include experimentation or a longitudinal strategy to obtain information on a certain perceived leadership and career success in a specific kind of bank.

REFERENCES

- Afsar, B. and Badir, Y.F. (2016), Person–organization fit, perceived organizational support, and organizational citizenship behavior: the role of job embeddedness, *Journal of Human Resources in Hospitality and Tourism*, Vol. 15 No. 3, pp. 252- 278.
- Al-Ghazali, B. M. (2020). Transformational leadership, career adaptability, job embeddedness and perceived career success: a serial mediation model. *Leadership and Organization Development Journal*, 41(8), 993–1013.
- Browning, Michelle. (2018). Self-Leadership: Why It Matters. *International Journal of Business and Social Science* Volume 9, Number 2, p.p. 14-18.
- Gomes, D.R. (2009). Organisational change and job satisfaction: the mediating role of organisational commitment, *Exedra Journals*, 1, pp. 177-195.
- Harunavamwe, M., Pillay, D., & Nel, P. (2020). The influence of psychological capital and self-leadership strategies on job embeddedness in the banking industry. *SA Journal of Human Resource Management*, 18, 1–11.
- Khalid, U., Mushtaq, R., Khan, A. Z., & Mahmood, F. (2021). Probing the impact of transformational leadership on job embeddedness: the moderating role of job characteristics. *Management Research Review*.
- Kinicki, A., & Kreitner, R. (2013). *Organizational Behavior*. 10th ed. New York, NY: McGraw-Hill Irwin.
- Kozanoglu, D. C., & Abedin, B. (2020). Understanding the role of employees in digital transformation: conceptualization of digital literacy of employees as a multi- 83 Universitas Indonesia dimensional organizational affordance. *Journal of Enterprise Information Management*.
- Lan, Y., & Chen, Z. (2020). Transformational leadership, career adaptability, and work behaviors: the moderating role of task variety. *Frontiers in psychology*, 10, 2922.
- Matt, C., Hess, T., & Benlian, A. (2015). Digital transformation strategies. *Business & information systems engineering*, 57(5), 339-343.
- Otoritas Jasa Keuangan. (Desember, 2018). *Digital Banking Technology Adoption and Bank Efficiency: The Indonesian Case*.
- Sahu, N., Deng, H. and Molla, A. (2018), Investigating the critical success factors of digital transformation for improving customer experience, *CONF-IRM 2018 Proceedings*, available at: <https://aisel.aisnet.org/confirm2018/18>
- Stumpf, S.A. (2014), A longitudinal study of career success, embeddedness, and mobility of early career professionals, *Journal of Vocational Behavior*, Vol. 85 No. 2, pp. 180-190.
- Trusler, Ingrid. (2018) *The relationship between self-leadership and shared leadership on team performance*. Pretoria: The Gordon institute of Business Science, University of Pretoria.
- Tsindeliani, I. A., Proshunin, M. M., Sadovskaya, T. D., Popkova, Z. G., Davydova, M. A., & Babayan, O. A. (2021). Digital transformation of the banking system in the context of sustainable development. *Journal of Money Laundering Control*.
- Wang, H. J., Demerouti, E., & Le Blanc, P. (2017). Transformational leadership, adaptability, and job crafting: The moderating role of organizational identification. *Journal of Vocational Behavior*, 100, 185-195.
- Wang, Y.F. (2013), Constructing career competency model of hospitality industry employees for career success, *International Journal of Contemporary Hospitality Management*, Vol. 25 No. 7, pp. 994-1016

Impact of Youtuber Endorsement, Country-of-Origin Figure, and Purchase Intention to Brand Attitude and Credibility of Chinese Smartphone

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ABSTRACT: The use of social media to market communication is widely used in the context of modern marketing. For example YouTube markets products by using YouTubers as spokespersons in building the brand. Therefore, this study evaluates the impact of YouTuber endorsement and purchase intention to brand attitude and credibility of Chinese smartphone. The investigation involves Country-of-Origin Figure (COO) variable according to the general perception of the Chinese products quality considered negative, which can affect consumer brand attitude. Structural Equation Modelling (SEM) analyzed the data of online survey from 207 respondent. The result shows that YouTuber endorsement has a positive impact to brand attitude and credibility. Furthermore, attractiveness, trustworthiness, and expertise impacted youtubers credibility. Brand attitude and credibility also have a positive impact to purchase intention of Chinese brand smartphones. Meanwhile, COO surprisingly has a positive impact in brand attitude due to the perception of quality improvement in the products. This study highlights the important factors that determine the credibility of youtuber endorsement used by smartphone companies in designing marketing strategies.

1 INTRODUCTION

Currently, information and communication technology are being developed, as the manufacture of new smartphones with advanced functionality. Since decades ago, smartphones have sold out other electronic devices such as laptops or tablets, reaching 472 million units in cumulative global sales (Mejame et al. 2020). The phrase "Made in China" can be found worldwide in the smartphone industry, even though China still has miles away from earning consumer confidence and belief in their products (Zbib et al., 2021). Chinese smartphones are considered cheap, not long-lasting, and not particularly sustainable. However, the companies have taken significant steps in recent years to gain a greater part of the world market. The Chinese products are strong and inexpensive since they enable sophisticated 5G networks throughout the budget (Chang et al., 2021). Smartphone users in Indonesia specifically experienced a significant increase from 2015 to 2020 and are predicted to increase until 2025 (Wolff 2021). Reflecting on current condition where customers are served with numerous options and alternatives, advertising activities are a technique used to establish product distinction worldwide (Opris et al., 2020). Furthermore, observing the phenomenon of demand increase from smartphones as previously described, the manufacturing companies should also carry out greater marketing activities. Presently, marketing through social media provides various advantages to build connections between users with similar interests (Gillin 2009). For example, YouTube is the most widely accessed social media site by internet users at 93.8% (Kemp 2021). One form of video content that is quite popular on this social media is blog videos or vlogs. In addition, the use of videos on Youtube is one of the effective means for marketing through influencers and endorsements (Bailis 2020).

2 LITERATURE REVIEW

The source credibility model explained that the effectiveness of delivering advertising messages depends on the endorser's expertise, trustworthiness, and attractiveness. Trustworthiness is a component explained in relation to the endorser's dignity, trust, and honesty, as seen by the consumers. Attractive endorsers can influence consumers to accept the messages conveyed effectively and efficiently (Wang et al., 2017). Lastly, skilled endorsers are more persuasive towards consumers to buy the product. Brand attitude is a unidimensional attitude, considered as a summary evaluation. It is distinguished from the actual evaluation that implies beliefs, feelings, behavior, and other components and expressions of attitudes (Wang et al., 2017). Brand credibility is defined as the level of trust in the information provided by the brand. It has a significant influence on introducing a brand. Purchase intention is a phenomenon about the tendency to treat a product and the possibility of interest of consumers to buy a product. According to previous studies, positive brand attitude can promote higher purchase intention. The influence on purchase intention is considered stable and can be used to predict consumer behavior (Medina-Molina et al., 2021).

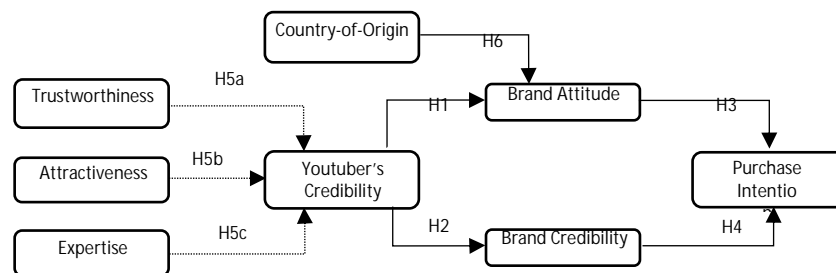


Figure 1. Study framework.

The Country-of-Origins (COO) of a product leads consumers to a particular perception associated with the attributes possessed by the product. The COO's influence is an evaluation from consumers who directly influences the product's marketing strategy and brand management (Zbib et al., 2021).

3 METHODOLOGY

The criteria for respondents to be used are people aged 15 - 65, a smartphone user who actively uses social media, specifically YouTube, and has watched review content for Chinese smartphone products. Data were collected through an online questionnaire using a measurement scaled response question prepared with a Likert scale of 6 (Malhotra 2010).

4 RESULTS

Table 1. Validity and reliability of variables

Variable	Construct reliability	Average variance extracted
Attractiveness	0.825	0.625
Trustworthiness	0.900	0.645
Expertise	0.898	0.690
Brand Attitude	0.832	0.555
Brand Credibility	0.899	0.567
Purchase Intention	0.888	0.573
Country-of-Origin	0.879	0.598

Confirmatory factor analysis is used to ensure the validity and reliability of the data (Hair et al. 2006). Standardized loading factor (SLF) values more than 0.50 and t-values greater than 1.96 were found for all measurement indicators. Furthermore, for all variables investigated, construct

reliability was more significant than 0.7, and the average variance extracted was greater than 0.5. This indicates that the model scales' reliability and validity have been established.

Five GOF indicators were used to calculate the model's Goodness of Fit (GOF) (Hair et al. 2006). Therefore, the overall model for this study may be regarded as having a good match.

All hypotheses are accepted according to the causal relationship. Attractiveness, trustworthiness, and expertise are the construct dimensions of endorsers' credibility based on SLF. Furthermore, the endorser's credibility and Country-of-Origin significantly impact brand attitude and credibility, while the brand attitude and credibility can significantly impact the purchase intention.

Table 2. Structural Model Fit

GOF Indicator	Fit Statistic	Decision
RMSEA	0.064	Good Fit
χ^2/df	1.84	Good Fit
TLI	0.901	Good Fit
IFI	0.911	Good Fit
CFI	0.91	Good Fit

Table 3. Construct dimension of endorsers credibility

Dimension	SLF
H5a	0.907
H5b	0.561
H5c	0.903

Table 4. Summary of causal relationship analysis

Hypothesis	Path	SLF	T-Value	Result
H1	Endorsers Credibility → Brand Attitude	0.377	4.202	Accepted
H2	Endorsers Credibility → Brand Credibility	0.623	7.273	Accepted
H3	Brand Attitude → Purchase Intention	0.747	7.773	Accepted
H4	Brand Credibility → Purchase Intention	0.320	4.477	Accepted
H6	Country-of-Origin → Brand Attitude	0.281	3.559	Accepted

5 CONCLUSION

According to the findings, the three fundamental elements of endorser credibility supported are attractiveness, trustworthiness, and expertise. Trustworthiness and expertise of endorsers best describe credibility from the three subconstructs. As a result, customers' attitudes towards the endorsed brand become more positive when it is more trustworthy, respectable, and desired. Furthermore, the perception of endorsers by consumers is a significant determinant of brand attitude (Spears and Singh 2004). Once customers believe the endorsers are credible, their perception of the endorsed brand improves. The findings show that consumers' perceptions of endorser credibility have a favorable and significant impact on brand attitude and credibility.

6 MANAGERIAL IMPLICATION

This study concerned with the perceived criteria that should be prioritized from the endorser's credibility, which is trustworthiness and expertise. The findings have crucial implications for the smartphone industry concerning how to use endorsement strategies to keep buyers interested in buying Chinese smartphones while acknowledging the importance of YouTuber endorsers in increasing smartphone brand sales.

Chinese brand smartphones became the object of study because of the demand increase in the market. Furthermore, the middle class, dominating the economy of Indonesia (Lidwina 2020), is a supporting factor that made the country a suitable target market for smartphone brands from China in offering products with prices lower than its competitor. Changes in consumer perception

of smartphone products from China can also be the opportunity and momentum utilized by the manufacturers from China in marketing their products. The results also show that respondents consider the importance of the COO factor. The COO of China has a positive impact on brand attitude in considering manufacturers from China to build good communication strategies and the figure desired by the brand.

REFERENCES

- Ahmed, Zafar U. et al. 2004. "Does Country of Origin Matter for Low-Involvement Products?" *International Marketing Review* 21(1).
- Bailis, Rochelle. 2020. "Influencer Marketing Statistics in 2020 (Trends + Key Takeaways)." *Mediakix*. <https://www.bigcommerce.co.uk/blog/influencer-marketing-statistics/#10-most-important-influencer-marketing-statistics-for-2020%0Ahttps://www.bigcommerce.co.uk/blog/influencer-marketing-statistics/#what-is-influencer-marketing%0Ahttps://www.bigcommerce.com>.
- Chang, Chris, Thomas Leung, and Karif Wat. 2021. "The Rise of Chinese Smartphones | South China Morning Post." *South China Morning Post*. <https://www.scmp.com/business/article/3006802/rise-and-rise-bangladesh>.
- Curwen, Peter. 2019. "Has the Smartphone Market Hit the Rocks?: A Regular Column on the Information Industries." *Digital Policy, Regulation and Governance* 21(2): 193–95.
- Erdogan, B Zafer. 1999. "Celebrity Endorsement: A Literature Review." *Journal of Marketing Management* 15(4): 291–314. <https://doi.org/10.1362/026725799784870379>.
- Gillin, P. 2009. *Secrets of Social Media Marketing: How to Use Online Conversations and Customer Communities to Turbo-Charge Your Business!* Quill Driver Books. <https://books.google.com.sg/books?id=GknyNwAACAAJ>.
- Hair, J F et al. 2006. *Multivariate Data Analysis (6th Edition)*. Pearson Prentice Hall. <https://books.google.co.id/books?id=WESxQgAACAAJ>.
- Kemp, Simon. 2021. *We Are Social Hootsuite Digital 2021: Indonesia*. <https://datareportal.com/reports/digital-2021-indonesia>.
- Kim, Samuel Seongseop, Jinsoo Lee, and Bruce Prideaux. 2014. "Effect of Celebrity Endorsement on Tourists' Perception of Corporate Image, Corporate Credibility and Corporate Loyalty." *International Journal of Hospitality Management* 37: 131–45. <http://dx.doi.org/10.1016/j.ijhm.2013.11.003>.
- Lidwina, Andrea. 2020. "Kelompok Penduduk Indonesia Terbesar Dilihat Dari Tingkat Pengeluarannya." *Databoks*: 1. <https://databoks.katadata.co.id/datapublish/2020/02/04/masyarakat-menuju-kelas-menengah-kelompok-terbesar-penduduk-indonesia>.
- Malhotra, Naresh K. 2010. *Marketing Research: An Applied Orientation*. Boston; New York: Pearson.
- Medina-Molina, Cayetano, Manuel Rey-Moreno, and Rafael Periañez-Cristóbal. 2021. "Analysis of the Moderating Effect of Front-of-Pack Labelling on the Relation between Brand Attitude and Purchasing Intention." *Journal of Business Research* 122(August 2020): 304–10.
- Mejame, Palle Paul Mejame et al. 2020. "Effect of Technological Developments for Smartphone Lithium Battery on Metal-Derived Resource Depletion and Toxicity Potentials." *Resources, Conservation and Recycling* 158(February): 104797. <https://doi.org/10.1016/j.resconrec.2020.104797>.
- Opris, Adriana, Corina Pelau, and Laura Lazar. 2020. "The Role of Celebrities for the Image of Endorsed Products." *Proceedings of the International Conference on Business Excellence* 14(1): 838–46.
- Spears, Nancy, and Surendra N Singh. 2004. "Measuring Attitude toward the Brand and Purchase Intentions." *Journal of Current Issues & Research in Advertising* 26(2): 53–66. <https://doi.org/10.1080/10641734.2004.10505164>.
- Tremblay, Victor J., and Stephen Polasky. 2002. "Advertising with Subjective Horizontal and Vertical Product Differentiation." *Review of Industrial Organization* 20(3): 253–65.
- Wang, Stephen W., Grace Hsiu Ying Kao, and Waros Ngamsiriudom. 2017. "Consumers' Attitude of Endorser Credibility, Brand and Intention with Respect to Celebrity Endorsement of the Airline Sector." *Journal of Air Transport Management* 60: 10–17.
- Wolff, Hanadian Nurhayati. 2021. "Smartphone Penetration Rate in Indonesia from 2017 - 2020 with Forecast Until 2026." *www.statista.com*. <https://www.statista.com/statistics/321485/smartphone-user-penetration-in-indonesia/>.
- Zbib, Imad, Reem Ghaddar, Ahmad Samarji, and Marwan Wahbi. 2021. "Examining Country of Origin Effect among Lebanese Consumers: A Study in the Cosmetics Industry." *Journal of International Consumer Marketing* 33(2): 194–208. <https://doi.org/10.1080/08961530.2020.1740634>.

The Effect of TQM Dimensions on The Performance of Zakat Institution as Non-Profit Organizations

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ABSTRACT: Total Quality Management (TQM) has been proven to improve the performance of companies. This research tries to provide additional findings that TQM can also contribute positively to the performance of non-profit organizations, especially zakat institutions. The data were obtained from zakat institutions in Indonesia and analyzed using multiple regression analysis. Furthermore, the respondents were leaders or top-level management because they have responsibilities in the organization's governance, and believed to have a good understanding of the required information. The data analysis showed that several TQM dimensions have a significant effect on the performance of zakat institutions as non-profit organizations. This research concludes that managers can focus more on several dimensions of TQM especially process management, learning, and continuous improvement to optimize their contribution to organizational performance.

1 INTRODUCTION

Muslims make up about 87.2% of the Indonesian population which is about 207 million people. With this condition, Indonesia has considerable potential for collecting zakat funds. The term zakat is generally used to represent a certain amount of wealth that needs to be issued and given to groups who are entitled to receive zakat such as poor people according to the provisions determined by sharia. In the development of economic growth, zakat plays an effective role in alleviating poverty (Abdullah et al., 2015).

Although zakat collection in Indonesia currently still has relatively large potential, the total funds collected by these institutions are relatively small. This phenomenon raises the question: 1) Is the management system of zakat institutions not yet effective and optimal in its purpose? and 2) Is there a proven management approach these institutions can use to improve their performance?

TQM has been proven to help many for-profit organizations in improving their performance. A research by Kaynak (2003) that analyzes the relationship between TQM practices and their effects on company performance shows a positive correlation. Furthermore, adopting TQM factors have a significant impact on operational and product/service quality performance, as well as customer satisfaction of service organizations (Psomas & Jaca, 2016).

Over time, TQM is not only applied by profit-oriented companies. Non-governmental or non-profit organizations have also adopted the dimensions to improve their performance (Saleh et al., 2017). These dimensions include leadership and management commitment; beneficiary focus and participation; partnership management for sustainability; human resource focus; process management, learning, and continuous improvement; and use of quality information (Sweis et al., 2016). Besides that, for the successful implantation of TQM, organizations can focus on one of the practices, which is the quality culture (Talib et al., 2013) as soft TQM dimensions (Dubey & Gunasekaran, 2015). Therefore, this research aims to empirically investigate the implementation of the TQM dimensions in the context of zakat institution as a non-profit organization in Indonesia. This research also analyzes the dimensions that have the most significant effects on performance.

2 LITERATURE REVIEW

2.1 Non-Profit Organizations

The non-profit sector can be defined as a collection of organizations, non-profit associations, which are voluntary. It is also known as the third sector, where the first is the government and public administration bodies, and the second is the private sector. The terms non-profit organization, third sector, and non-governmental organization are commonly used in the same sense for simplification purposes in research (Reichel & Rudnicka, 2009). The Zakat Foundation of America (2021) stated zakat institution as a non-profit organization. Therefore, the term non-profit organization is used in this research, which is more in line with the characteristics of the zakat institution.

Although non-profit organizations have different characteristics from profit-oriented ones, external and internal factors play a role in determining their performance. From the external factors point of view, non-profit organizations need to survive the competition caused by the limited availability of funds (Ashley & Faulk, 2010). Meanwhile, based on internal factors, strengthening organizational capacity and management through effective interventions and strategies is very important (Millesen et al., 2010).

2.2 TQM Dimensions

Based on the previous research related to the implementation of TQM dimensions in non-profit organizations (¹Sweis et al., 2016; Saleh et al., 2017) including quality culture (²Talib et al., 2013; Dubey & Gunasekaran, 2015), the conceptual model was used as shown in Figure 1 to analyze the research hypothesis: The TQM dimension has a positive and significant impact on the performance of non-profit organizations, in this case, zakat institutions.

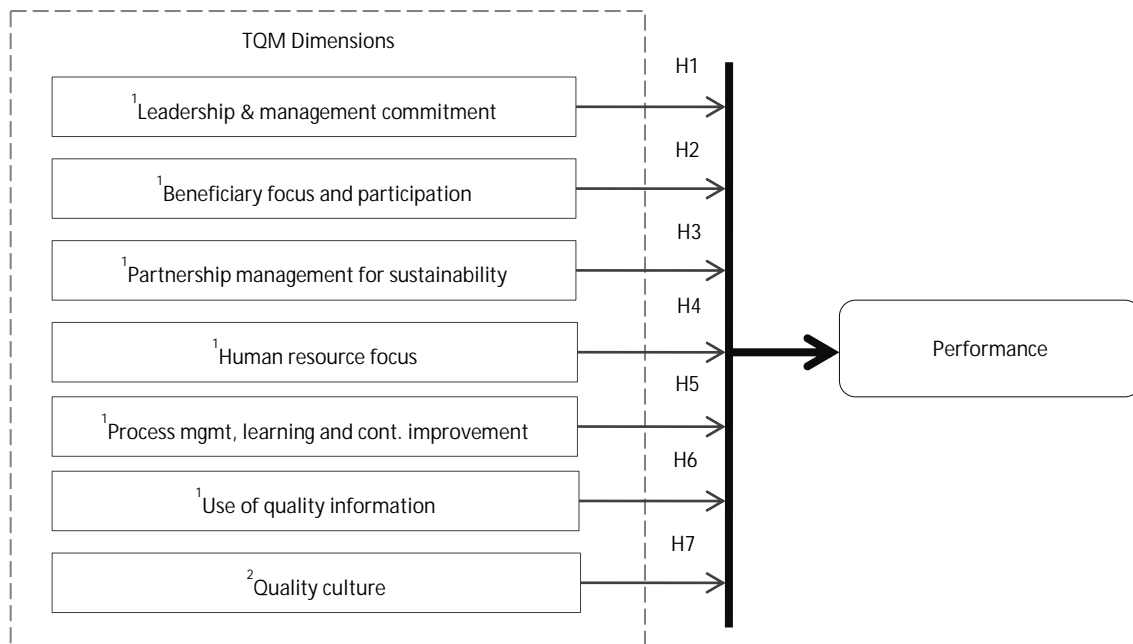


Figure 1. Conceptual Model.

3 RESEARCH METHOD

3.1 Research Population

The population of this research was all the zakat institutions in Indonesia. The sample was 71 institutions registered on National Zakat Agency (BAZNAS), Zakat Forum Member (FOZ), and/or Zakat Collecting Unit (UPZ). The respondents' criteria were top management or

representative of zakat institutions. This is because the leaders have the responsibility to socialize and strengthen the culture quality of all the organization (Sweis et al., 2016).

3.2 Measures

In this research, the primary data were those collected directly from the object, that is the zakat institution utilizing a series of structured questionnaires, which used a Likert-based measurement scale. The respondents were asked to give an assessment according to their preferences on a six-point Likert scale (1 = strongly disagree to 6 = strongly agree).

The instrument was adapted from previous research related to the implementation of TQM dimensions in non-profit organizations (Sweis et al., 2016), including quality culture (Talib et al., 2013). Prior to primary data collection, this questionnaire was initially validated through a pilot survey and passed the validity and reliability test.

3.3 Statistical Analysis

After the model and hypotheses were developed, the variables and hypotheses were tested using factor and multiple linear regression analysis with the SPSS application. Furthermore, the analytical framework used to investigate the relationship between TQM and performance was based on multiple regressions (Samson & Terziovski, 1999; Talib et al., 2013; Dubey & Gunasekaran, 2015; Saleh et al., 2017). The multiple regression analysis helps to assess the strength of the relationship between the dependent and several independent variables, and the importance of each independent to the relationship (Petchko, 2018).

4 RESULTS AND DISCUSSIONS

This research use F-test method to test the hypothesis. By looking at the results of the F and the significance value (Sig.), it can be concluded that the hypothesis is accepted. Statistically, it can also be proven that the dimensions of TQM can simultaneously have a significant influence on the performance of zakat institutions as non-profit organizations. This result is in line with previous research that measured the effect of TQM dimensions on organizational performance (Talib et al., 2013, Dubey & Gunasekaran, 2015), specifically non-profit or third sector organizations (Saleh et al. al., 2017). Furthermore, the descriptive analysis results support the hypothesis. The results show that the zakat institutions in Indonesia have implemented the TQM dimension to improve performance, indicated by the high mean value on all TQM dimensions and the organizational performance.

Subsequently, to determine which dimensions have the most significant influence, the test was carried out using the T-test method. The results showed that process management, learning, continuous improvement is the dimension that has the highest level of significance, among others, namely quality culture, beneficiary focus and participation and use of quality information. The other three dimensions of TQM, such as human resource focus, leadership and management commitment, and partnership management for sustainability do not show a positive and significant influence.

5 CONCLUSIONS

This research has investigated the relationship between the TQM dimensions and quality performance in Indonesian zakat institutions and effectively met the research's stated objectives. Through a series of statistical tests on the hypothesis, the analysis results showed there is a positive effect of TQM dimensions on the performance of zakat institutions as non-profit organizations. Although it showed a positive effect, the analysis also showed that not all the dimensions can have a significant effect on performance. The TQM dimension that has the greatest influence is only supported by four dimensions, namely process management, learning, and continuous improvement; quality culture; beneficiary focus and participation; and use of quality information. As a practical implication, this research concludes that managers can focus more on several dimensions of TQM especially process management, learning, and continuous improvement to optimize their contribution to organizational performance. However, this

research used a partial perceptual performance rather than an entirely objective measure, which may not fully reflect the organization's performance. Therefore, it is suggested that future research consider adding quantitative aspects of measurement so that the research analysis results become more representative.

REFERENCES

- Abdullah, N., Mat Derus, A., & Al-Malkawi, H.-A. N. (2015). The effectiveness of zakat in alleviating poverty and inequalities. *Humanomics*, 31(3), 314–329. <https://doi.org/10.1108/H-02-2014-0016>.
- Ashley, S., & Faulk, L. (2010). Nonprofit competition in the grants marketplace. *Nonprofit Management and Leadership*, 21(1), 43–57. <https://doi.org/https://doi.org/10.1002/nml.20011>.
- Dubey, R., & Gunasekaran, A. (2015). Exploring soft TQM dimensions and their impact on firm performance: some exploratory empirical results. *International Journal of Production Research*, 53(2), 371–382. <https://doi.org/10.1080/00207543.2014.933909>.
- Kaynak, H. (2003). The relationship between total quality management practices and their effects on firm performance. *Journal of Operations Management*, 21(4), 405–435. [https://doi.org/https://doi.org/10.1016/S0272-6963\(03\)00004-4](https://doi.org/https://doi.org/10.1016/S0272-6963(03)00004-4).
- Millesen, J. L., Carman, J. G., & Bies, A. L. (2010). Why engage? *Nonprofit Management and Leadership*, 21(1), 5–20. <https://doi.org/https://doi.org/10.1002/nml.20009>.
- Petchko, K. (2018). Chapter 13 - *Data and Methodology* (K. B. T.-H. to W. A. E. and P. P. Petchko (ed.); pp. 241–270). Academic Press. <https://doi.org/https://doi.org/10.1016/B978-0-12-813010-0.00013-2>.
- Psomas, E. L., & Jaca, C. (2016). The impact of total quality management on service company performance: evidence from Spain. *International Journal of Quality & Reliability Management*, 33(3), 380–398. <https://doi.org/10.1108/IJQRM-07-2014-0090>.
- Reichel, J., & Rudnicka, A. (2009). Collaboration of NGOs and business in Poland. *Social Enterprise Journal*, 5(2), 126–140. <https://doi.org/10.1108/17508610910981716>.
- Samson, D., & Terziovski, M. (1999). The relationship between total quality management practices and operational performance. *Journal of Operations Management*, 17(4), 393–409. [https://doi.org/https://doi.org/10.1016/S0272-6963\(98\)00046-1](https://doi.org/https://doi.org/10.1016/S0272-6963(98)00046-1).
- Saleh, F. I., Swies, R. J., Abdelqader, B. Y., Abdallah, A. B., & Arafeh, M. (2017). The effect of TQM dimensions on the performance of international non-governmental organisations operating in Jordan. *International Journal of Productivity and Quality Management*, 21(No. 4), 443–459. <https://doi.org/10.1504/IJPQM.2017.085254>.
- Sweis, R. J., Mahmoud Saleh, F. I., Dahiyat, S. E., Sweis, N. J., Saleh, R. A., & Diab, H. (2016). Benchmarking of TQM practices in INGOs: a literature review. *Benchmarking: An International Journal*, 23(1), 236–261. <https://doi.org/10.1108/BIJ-02-2015-0013>.
- Talib, F., Rahman, Z., & Qureshi, M. N. (2013). An empirical investigation of relationship between total quality management practices and quality performance in Indian service companies. *International Journal of Quality & Reliability Management*, 30(3), 280–318. <https://doi.org/10.1108/02656711311299845>.

Does Live Streaming Selling Affect Customer Engagement and Purchase Intention? The Shopee Live Platform Study Case

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ABSTRACT: This empirical paper draws on social learning theory to examine the live streaming shopping value perceived by the customer and its relation to customer trust, customer engagement, and purchase intention. A research model was developed with eighteen hypotheses to explore which value plays a key role in encouraging purchase intention of fashion products in the Shopee Live platform. 225 valid responses were tested with SEM-LISREL. The findings showed that only symbolic value affects purchase intention directly and indirectly, while hedonic value affects purchase intention directly. Utilitarian value affects purchase intention indirectly through trust in the product and customer engagement. The result highlights the direct and indirect path through which shopping value affect customer behavioral outcome. This result may be used as an input for small sellers who operate in Shopee Live to manage live streaming activities better which suits consumer behavior to build customer engagement and enhance purchase intention.

1 INTRODUCTION

Nowadays, people in Indonesia use the marketplace as a channel to purchase products or services. Purchasing behavior through the marketplace has been rising since the COVID-19 pandemic, resulted in significant growing of online business. The Bank Indonesia governor, Perry Warjiyo, forecasted that e-commerce transactions through the marketplace would grow up to 33.2% in 2020, where the revenue of transactions would grow from Rp253 trillion to Rp337 trillion in 2021. Most sellers at the marketplace are small sellers. Unlike well-developed businesses with strict quality control, high consumer trust, and return policies; buying from small sellers, especially those who have not had physical stores, is risky. There is a probability that customers will not receive the product, or receive a fake, poor-quality product. This has resulted in customers having less trust in small sellers than the large ones (Y. Lu et al., 2006). To increase customer trust, marketplaces present a service called as live streaming, where the platform allows live and real-time communication between the seller and the consumer. Live streaming is used to demonstrate how the product is created and used, to show the different sides of the product, to answer customer questions in real-time, to organize live streaming activities to attract viewers, and to encourage consumers to purchase (Z. Lu et al., 2018). This research aims at examining the role of live streaming that potentially affects customer trust, customer engagement, and purchase intention.

2 LITERATURE REVIEW

This research draws on social learning theory illustrating human behavior in mutual interaction, which are affected by cognitive, behavioral, and environmental factors. Online social learning is a process where consumer gain social knowledge through browsing a content in online social commerce (Chen et al., 2017). The learning process integrates external interaction with the psychological-internal process. External interactions have a social dimension, which involves the integration of a person with their organization or society (Illeris, 2003). The internal factors have two dimensions, namely cognitive and affective factors. The cognitive aspect is related to utilitarian function, whereas the affective factor is related to a hedonic aspect such as feelings, emotion, and belief (Lee & Jeong, 2012). According to social learning theory, consumers may get utilitarian, hedonic, and social/symbolic value through shopping from the marketplace. Previous research has found that consumers make online purchases based on utilitarian and hedonic values

(Childers et al., 2001). Since the symbolic aspect has a crucial role in the e-commerce marketplace (De Vries & Carlson, 2014), the symbolic value is also examined in this paper.

Utilitarian value refers to the degree perceived by consumers to which a product or service provides expected utility. Hedonic value is related to the degree of playfulness experienced by consumers from the marketplace (Jarvenpaa & Todd, 1997), while symbolic value is related to the consumers tendency in perceiving that shopping experience can reflect and increase their personal identity (Sirgy et al., 2000) and help them achieving social integration (Hewer & Campbell, 1997). Consumers may perceive utilitarian, hedonic, and symbolic value through trust in the seller and the product. Trust in the seller refers to the belief that the seller is honest, delivers good service, and does not take advantage of customers (Y. Lu et al., 2010). Trust in the product is defined as the belief that a product will meet customer expectations (Pappas, 2016).

Customer engagement is considered mediated by shopping value (utilitarian, hedonic, symbolic) to encourage customer purchase intention in the marketplace. It refers to the degree of consumer interaction and relation with the brand or company's promotion and activities initiated by the consumer or company (Vivek, Beatty, & Morgan, 2014). Customer purchase intention is defined as customer intention to buy products or services from the live streaming platform (Zeithaml et al., 2018).

This research aims at examining whether shopping value (utilitarian, hedonic, symbolic) is successfully formed by the seller in live streaming activity (in this paper, Shopee Live platform) to drive customer engagement and purchase intention. We extended the research conducted by Wongkitrungrueng & Assarut (2020) by adding purchase intention as the research output.

3 RESEARCH METHODS

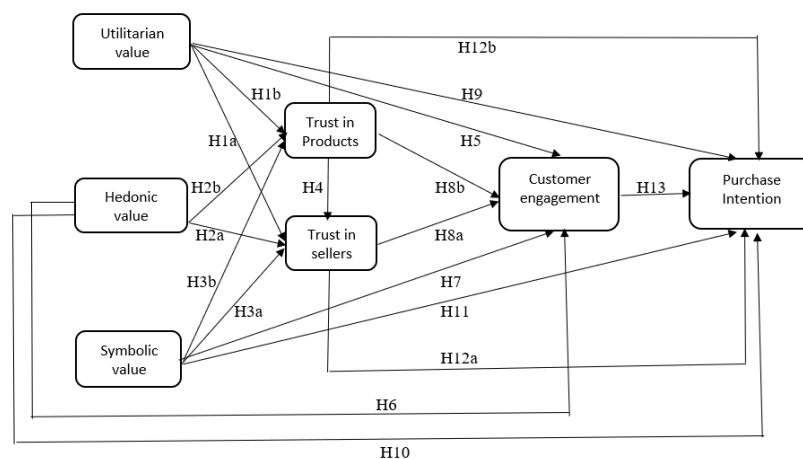


Figure 1. Research model

The questionnaire was given online via Google Forms to collect the data. The questionnaire was presented in Indonesian. The respondents were Indonesian people with the prerequisite that they are at least 18 years old and had experienced watching Shopee Live at least once in the last two weeks, had ever purchased fashion product from Shopee platform, and had never purchased fashion products via Shopee Live. All of the questionnaire items were derived from previous research. We invited the participants by sharing a link on WhatsApp, Facebook, and Instagram. The survey was conducted from September 2021 to October 2021. The respondents were asked to answer questions on perceived shopping value, consumer trust, and customer engagement in Shopee Live, then followed by purchase intention using the seven-point Likert scale anchored with (1) "strongly disagree" to (7) "strongly agree". 225 valid responses were used in the data analysis. LISREL 8.51 was used to conduct structural equation modeling (SEM) data processing.

4 RESULTS

The hypotheses were tested using SEM-LISREL. The results showed that ten hypotheses were supported, while eight hypotheses were not supported as shown in Table 1.

Table 1 Hypothesis testing results (Direct effect)

Hypotheses	Path	SLF	T-values	Result
H1a:	Utilitarian value to trust in seller	0.15	1.90	Supported
H1b:	Utilitarian value to trust in product	0.83	4.50	Supported
H2a:	Hedonic value to trust in seller	-0.14	-1.26	Not supported
H2b:	Hedonic value to trust in product	0.01	0.07	Not supported
H3a:	Symbolic value to trust in seller	0.17	1.34	Not supported
H3b:	Symbolic value to trust in product	0.42	3.03	Supported
H4:	Trust in product to trust in seller	0.67	6.71	Supported
H5:	Utilitarian value to customer engagement	-0.07	-0.89	Not supported
H6:	Hedonic value to customer engagement	0.13	1.16	Not supported
H7:	Symbolic value to customer engagement	0.55	3.91	Supported
H8a:	Trust in seller to customer engagement	-0.19	-1.87	Not supported
H8b:	Trust in product to customer engagement	0.36	3.18	Supported
H9:	Utilitarian value to purchase intention	-0.20	-2.43	Not supported
H10:	Hedonic value to purchase intention	0.25	2.43	Supported
H11:	Symbolic value to purchase intention	0.26	1.86	Supported
H12a:	Trust in seller to purchase intention	0.26	2.57	Supported
H12b:	Trust in product to purchase intention	-0.04	-0.38	Not supported
H13:	Customer engagement to purchase intention	0.39	4.33	Supported

The results of direct effect hypothesis testing found that utilitarian value negatively affected customer engagement and purchase intention. Hedonic value had no significant relationship with customer engagement but positively affected purchase intention. The symbolic value was found to be the only shopping value that affected customer engagement and purchase intention directly and indirectly. This research also examined the indirect effect in which shopping value (utilitarian, hedonic, symbolic) affected purchase intention. Customer trust and customer engagement were tested as a mediator. The indirect path that significantly mediated shopping value to purchase intention is shown in Table 2 .

Table 2: Hypothesis testing result (Indirect effect)

Mediator				
Chain	Path	T-value	p-value	Result
1	UV-TP-CE-PI	2.227	0.026	Supported
2	UV-TP-TS-PI	2.118	0.034	Supported

* UV=Utilitarian value, TP=Trust in product, TS=Trust in seller CE=Customer engagement,

Utilitarian value negatively affected purchase intention in a direct path but it significantly affected purchase intention in two indirect ways that were mediated by two paths, namely trust in product to customer engagement to purchase intention, and trust in product to trust in seller to purchase intention.

5 CONCLUSIONS

We found that there was different paths by which shopping value (utilitarian, hedonic, symbolic) affected customer engagement and purchase intention. Only symbolic value directly affected customer engagement. Hedonic and symbolic value had a positive direct impact on purchase intention. This research found that utilitarian value had no direct impact on purchase intention. However, our finding showed that indirect effect utilitarian value significantly affected purchase intention. Utilitarian value affected purchase intention through trust in the product and customer engagement, and through trust in the product and trust in the seller. This research provides insight into what shopping value (utilitarian, hedonic, symbolic) is perceived by consumers in live streaming activities that engaged them and led them to make a purchase decision. This research also encourages online sellers to apply live streaming features to attract online buyers.

REFERENCES

- Chen, A., Lu, Y., & Wang, B. 2017. Customers' purchase decision-making process in social commerce: A social learning perspective. *International Journal of Information Management*, 37(6), 627–638. <https://doi.org/10.1016/J.IJINFOMGT.2017.05.001>
- Childers, T. L., Carr, C. L., Peck, J., & Carson, S. 2001. Hedonic and utilitarian motivations for online retail shopping behavior. *Journal of Retailing*, 77(4), 511–535. [https://doi.org/10.1016/S0022-4359\(01\)00056-2](https://doi.org/10.1016/S0022-4359(01)00056-2)
- De Vries, N. J., & Carlson, J. 2014. Examining the drivers and brand performance implications of customer engagement with brands in the social media environment. *Journal of Brand Management*, 21(6), 495–515. <https://doi.org/10.1057/BM.2014.18>
- Hewer, P., & Campbell, C. 1997. Research on Shopping: A Brief History and Selected Literature. In P. Falk & C. Campbell (Eds.), *The Shopping Experience* (p. 186). SAGE Publications Ltd.
- Illeris, K. 2003. Towards a contemporary and comprehensive theory of learning. *International Journal of Lifelong Education*, 22(4), 396–406. <https://doi.org/10.1080/026013703004837>
- Jarvenpaa, S. L., & Todd, P. A. 1997. Is There a Future for Retailing on the Internet? In R. A. Peterson (Ed.), *Electronic Marketing and the Consumer* (pp. 139–154). SAGE Publications, Inc.
- Lee, S., & Jeong, M. 2012. Effects of e-servicescape on consumers' flow experiences. *Journal of Hospitality and Tourism Technology*, 3(1), 47–59. <https://doi.org/10.1108/17579881211206534>
- Lu, Y., Deng, Z., & Yu, J. 2006. A Study on Evaluation Items and Its Application for B2C E-commerce Trust. In H. Lan (Ed.), *Proceedings of the 2006 International Conference on Management Science and Engineering* (pp. 13–18). Institute of Electrical and Electronics Engineers (IEEE). <https://doi.org/10.1109/ICMSE.2006.313924>
- Lu, Y., Zhao, L., & Wang, B. 2010. From virtual community members to C2C e-commerce buyers: Trust in virtual communities and its effect on consumers' purchase intention. *Electronic Commerce Research and Applications*, 9(4), 346–360. <https://doi.org/10.1016/J.ELERAP.2009.07.003>
- Lu, Z., Xia, H., Heo, S., & Wigdor, D. 2018. You watch, you give, and you engage: A study of live streaming practices in China. In R. Mandryk & M. Hancock (Eds.), *Conference on Human Factors in Computing Systems - Proceedings* (Vols. 2018-April). Association for Computing Machinery. <https://doi.org/10.1145/3173574.3174040>
- Pappas, N. 2016. Marketing strategies, perceived risks, and consumer trust in online buying behaviour. *Journal of Retailing and Consumer Services*, 29, 92–103. <https://doi.org/10.1016/J.JRETCONSER.2015.11.007>
- Sirgy, M. J., Grewal, D., & Mangleburg, T. 2000. Retail Environment, Self-Congruity, and Retail Patronage: An Integrative Model and a Research Agenda. *Journal of Business Research*, 49(2), 127–138. [https://doi.org/10.1016/S0148-2963\(99\)00009-0](https://doi.org/10.1016/S0148-2963(99)00009-0)
- Vivek, S. D., Beatty, S. E., & Morgan, R. M. 2014. Customer Engagement: Exploring Customer Relationships Beyond Purchase. <http://Dx.Doi.Org/10.2753/MTP1069-6679200201>, 20(2), 122–146. <https://doi.org/10.2753/MTP1069-6679200201>
- Wongkitrungrueng, A., & Assarut, N. 2020. The role of live streaming in building consumer trust and engagement with social commerce sellers. *Journal of Business Research*, 117, 543–556. <https://doi.org/10.1016/J.JBUSRES.2018.08.032>
- Zeithaml, V. A., Berry, L. L., & Parasuraman, A. 2018. The Behavioral Consequences of Service Quality: <https://doi.org/10.1177/002224299606000203>, 60(2), 31–46. <https://doi.org/10.1177/002224299606000203>

The Effect of Environmental, Social, and Governances Score and Ownership Structure Toward Capital Cost

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ABSTRACT: The purpose of this study was to examine the potential impact of environmental, social, and governance (ESG) scores and ownership structures toward Indonesian public companies' capital costs. The companies' ESG score was proxied by Refinitiv ESG Score, while the ownership structure was proxied by the institutional, insider, block-holder, and foreign ownership percentage. Meanwhile, the capital cost was proxied by StarMine Refinitiv Weighted Average Cost of Capital. The data panel were processed through multiple linear regression using the random effect model. The results reveal that ESG scores significantly decreased companies' capital costs with a higher insider ownership percentage. Nevertheless, the ESG score failed to significantly decrease companies' capital costs in other companies with different ownership structures. Based on this result, it was highly recommended that the Indonesian government implement regulations better to compensate a company with a good ESG performance.

1 INTRODUCTION

Despite the increasing global awareness of the importance of environmental, social, and corporate governance (ESG) issues to be integrated with the business world, few companies voluntarily disclose and improve their environmental, social, and corporate governance performance in Indonesia. Therefore, it is interesting to study why these companies are not interested in disclosing and improving their ESG performance. In addition to pursuing financial performance, one of the things that the company pays attention to, especially in the field of company financial management, is how the company can manage the company's cost of capital. The cost of capital is inseparable from the company's ownership structure, which could influence the company in formulating the company's capital structure policy, which will impact the company's capital cost. If the company's capital cost is reduced, the company will avoid bankruptcy or default. If the capital cost is reduced by improving ESG performance, companies should be motivated to improve their ESG performance (Ellili, 2020). Thus, this study was interested in examining how the ESG performance as reflected in environmental, social, and corporate governance values and corporate ownership structure affected the cost of capital for companies in Indonesia. The results of this study could be used as input by the government in developing appropriate regulations in response to the lack of voluntary levels of public companies in Indonesia in disclosing and improving their ESG performance.

2 LITERATURE REVIEW

Based on the legitimacy theory, the company must follow the people's expectations in the surrounding environment to gain legitimacy from the community. When a company gained legitimacy from the community, it would trust the company in carrying out its business operations (Deegan, 2019). The public's trust in the company could be recognized from the community's expectation of return to the company. If the expected return on the company's shares is low, the company is believed to have low environmental, social, and corporate governance risks. This theory is proven by Ellili (2020), Piechocka-Kaluzna et al. (2021), and Wong et al. (2021), showing that the ESG value has a significant negative effect on the company's cost of capital.

Agency theory states that asymmetric information between company managers and owners creates conflicts imposing additional costs for company owners. Institutional companies often actively participate in good corporate governance to reduce asymmetric information that can

burden institutional companies and lose control over company managers. The agency theory on institutional ownership is proven by research conducted by Suto & Takehara (2017)), which found that the more institutional ownership of companies in Japan, the lower capital cost for these companies. Managerial ownership aligns the interests of managers with that of shareholders' so that it will reduce the agency problems that impact the cost of equity capital, one component of the capital cost, which was proven in Cheng et al. (2006).

Lin et al. (2011) found that block ownership positively affects the cost of capital because the moral hazard activity caused by the more concentrated share ownership above 5% makes their excess control rights more facilitated. Bena et al. (2017) found that the presence of foreign owners has a positive effect on the quality of the company's audit to minimize asymmetric information. When this happened, the company managers' decisions would be more controlled so that they would not take very high risks, to make the company have debt costs, and the cost of equity capital became huge.

The arguments based on the previous literatures above become the basis for formulating the following hypothesis:

- H1 : ESG score has a negative impact significantly on the capital cost.
- H2a : The institutional ownership has a negative impact significantly on the capital cost.
- H2b : The insider (managerial) ownership has a negative impact significantly on the capital cost.
- H2c : The block-holder ownership has a positive impact significantly on the capital cost.
- H2d : The foreign ownership has a negative impact significantly on the capital cost.

3 METHODS

The sample in this study was companies listed on the Indonesia Stock Exchange that had data on ESG values and the weighted average cost of capital (WACC) at Refinitiv and had information about ownership structure in their annual reports. The period of this study was from 2015 to 2020. The dependent variable was the company's capital costs proxied by Starmine weighted average capital cost because Starmine could be better in providing more accurate data of capital cost. The independent variable in this study was the ESG value, whose data was provided by Refinitiv and the company structure, divided into four types: institutional ownership, managerial ownership, block holder ownership, and foreign ownership obtained from the annual reports of each company. The control variables used in this study were company size, proxied by the natural logarithm of the company's total assets; the level of leverage, proxied by the ratio of total liabilities to total company assets; and the company's return on assets every year.

The data that has been collected were compiled into unbalanced panel data, and then analyzed using ordinary least squares (OLS) cross-sectional regression analysis. The regression model is made with the following equation:

$$WACC_{it} = \beta_0 + \beta_1 ESG_{it-1} + \beta_2 IO_{it-1} + \beta_3 INS_{it-1} + \beta_4 BO_{it-1} + \beta_5 FO_{it-1} + \beta_6 SIZE_{it-1} + \beta_7 LEV_{it-1} + \beta_8 ROA_{it-1}$$

Where WACC is the capital cost (based on Starmine calculation in Refinitiv database), ESG is the ESG score (based on Refinitiv database), IO is the percentage of outstanding shares owned by institutional parties, INS is the percentage of outstanding shares owned by its own managers, BO is the percentage of outstanding shares owned by a party that owned more than 5% outstanding shares of the company, and FO is the percentage of outstanding shares owned by foreign parties. The controlling variable are SIZE which is the size of the company (natural logarithm of company's total asset), LEV which is the rate of leverage (total liabilities to total assets), and ROA which is the return on the assets of the company.

The software used in conducting the analysis was EViews 11. Before testing the hypothesis with regression, this study would first conduct a descriptive analysis and test the suitable model used in the regression.

4 EMPIRICAL RESULTS

Based on the results of descriptive analysis, it could be seen that the average cost of capital owned by companies in Indonesia in the period of 2015 to 2020 was 10%, with a median value of 10%. Because of the positive skewness, many companies had capital costs below 10%. Moreover, the average ESG value of companies in Indonesia was 39, with a median value of 40. A negative Skewness indicated that more companies had an ESG value above 40. The type of ownership that had the most companies in the research sample was institutional ownership, where the average company in the sample was owned by 79% by institutional owners, followed by block holder ownership, where on average, the companies in the sample were owned by 60% by block holders or parties who had more than 5% shares.

To determine the most suitable model used in the regression, first this paper conducted Chow test. The Chow test found that the most suitable model was the fixed-effect model because $\text{Prob.} > \chi^2_{bar} = 0.00$, then this paper conducted Hausman test and the result shows that random effect model was more appropriate than the fixed effect model after testing because $\text{Prob.} > \chi^2_{bar} = 0.15$.

Table 1 shows that there was consistency with previous studies related to the effect of ESG value on the company's cost of capital (Ellili, 2020; Piechocka-Kaluzna et al., 2021; Wong et al., 2021). Based on the regression results, the ESG variable had a significant negative effect on the company's cost of capital. This significant influence could be explained by the legitimacy theory, suggesting that when the company met the community's expectations, it would gain legitimacy or trust from the community in carrying out the company's business activities. This trust could be seen from the public's belief that the company had a low risk.

Table 1. Regression using the Random Effect Model (REM)

Variable	Coefficient Std.	Prob.
C	0.099701	0.3442
ESG	-0.000347***	0.0092
IO	-0.006731	0.5742
INS	-0.420264**	0.0243
BO	0.005284	0.705
FO	-0.031796*	0.2396
SIZE	0.002005	0.5548
LEV	-0.046825**	0.0143
ROA	0.041222*	0.2366
R-squared	0.064856	
Prob(F-statistic)	0.006077	

*, **, and *** denote significance at 10%, 5%, and 1% levels respectively.

Based on the regression results, the ownership structure variable showed that institutional ownership (IO) had no significant effect on companies' capital cost in Indonesia revealing the company's ESG performance. This finding was not in line with previous research conducted by Suto & Takehara (2017), which found that institutional ownership could significantly negatively affect the company's capital cost. in Japan. It might be due to the different characteristics of institutional investors in Japan and Indonesia. These results indicate that the type of institutional ownership in Indonesia could not effectively influence company management to reduce the company's capital cost.

Managerial ownership (INS) had a significantly negative effect on the company's capital cost. It is in line with previous research conducted by Cheng, Collins, & Huang (2006). If viewed from agency theory, the regression results could occur because managers who own companies in Indonesia could reduce the degree of difference in interests between owners and company managers. Company managers that own company shares would maintain the company to have excellent and sustainable performance because the value of these shares would affect the company's wealth level.

The regression results showed that block holder ownership could not significantly influence the capital cost. It was not in line with previous research conducted by Lin et al. (2011), finding

that block holder ownership had a significantly positive effect on its capital cost. Block holder ownership was believed to increase moral hazard activities that resulted in agency problems within the company. The findings in the regression results of this study indicated that block holder ownership did not necessarily cause a moral hazard for companies in Indonesia that disclosed ESG performance.

Table 1 suggested that foreign ownership also did not have a significant effect on the capital cost for companies in Indonesia that revealed ESG performance. It was not in line with Bena et al.'s (2017), which found that foreign ownership had a significant negative effect on its capital cost. Therefore, from the findings of the regression results of this study, it could be indicated that foreign ownership was not able to effectively control company managers who disclosed ESG performance in Indonesia to reduce the company's capital cost.

Based on Table 1, simultaneously, all independent variables raised in this study could significantly affect the company's capital cost that disclosed ESG performance in 2015-2020. However, it could be seen from the R-squared value that this research model was only able to explain the movement of the company's capital cost by 6%. Many other variables were not taken into account in this research model.

5 CONCLUSIONS

This study found that when corporate managers increasingly own firms, they could reduce their capital cost when they improve their corporate environmental, social, and governance performance. Since other types of ownership could not significantly reduce the capital cost, it was recommended that the Indonesian government make adequate regulations to compensate all companies in Indonesia that improved their ESG performance to reduce the capital cost. For further research, it was recommended to consider other ESG and WACC data sources to overcome the habit of the data used in this study and consider other variables such as the company's ESG controversy.

REFERENCES

- Bena, J., Ferreira, M. A., Matos, P., & Pires, P. (2017). Are foreign investors locusts? The long-term effects of foreign institutional ownership. *Journal of Financial Economics*, 126(1), 122–146. <https://doi.org/10.1016/j.jfineco.2017.07.005>
- Cheng, C. S. A., Collins, D., & Huang, H. H. (2006). Shareholder rights, financial disclosure and the cost of equity capital. *Review of Quantitative Finance and Accounting*, 27(2), 175–204. <https://doi.org/10.1007/s11156-006-8795-2>
- Deegan, C. M. (2019). Legitimacy theory. *Accounting, Auditing & Accountability Journal*, 32(8), 2307–2329. <https://doi.org/10.1108/AAAJ-08-2018-3638>
- Ellili, N. O. D. (2020). Environmental, Social, and Governance Disclosure, Ownership Structure and Cost of Capital: Evidence from the UAE. In *Sustainability* (Vol. 12, Issue 18). <https://doi.org/10.3390/su12187706>
- Lin, C., Ma, Y., Malatesta, P., & Xuan, Y. (2011). Ownership structure and the cost of corporate borrowing. *Journal of Financial Economics*, 100(1), 1–23. <https://doi.org/10.1016/j.jfineco.2010.10.012>
- Piechocka-Kaluzna, A., Tluczak, A., & Lopatka, P. (2021). The Impact of CSR/ESG on the Cost of Capital: A Case Study of US Companies. *European Research Studies Journal*, 0(Special 3), 536–546. <https://ideas.repec.org/a/ers/journal/vxxivy2021special3p536-546.html>
- Suto, M., & Takehara, H. (2017). CSR and cost of capital: evidence from Japan. *Social Responsibility Journal*, 13(4), 798–816. <https://doi.org/10.1108/SRJ-10-2016-0170>
- Wong, W. C., Batten, J. A., Ahmad, A. H., Mohamed-Arshad, S. B., Nordin, S., & Adzis, A. A. (2021). Does ESG certification add firm value? *Finance Research Letters*, 39, 101593. <https://doi.org/10.1016/j.frl.2020.101593>

The Effect of Enterprise Risk Management (ERM), and Intellectual Capital (IC) on The Performance of Banking Organizations Listed in Indonesia

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ABSTRACT: This research aims at examining the effect of Enterprise Risk Management (ERM) and Intellectual Capital (IC) on the performance of several banks in Indonesia. Relevant information on ERM, and other variables analyzed are derived from the annual corporate governance and management reports. The data collected from 32 companies within a 9-year period (2011-2019) is used to generate all observations in this research. Furthermore, the findings indicate that implementing ERM does not demonstrate a positive and significant effect on performance and value. In contrast, measurements using the VAIC formula indicate that intellectual capital has a positive significant effect on Return on Asset (ROA) but is insignificant on Tobin's Q.

1 INTRODUCTION

Carrying out commercial activities has always been associated with a risk that arises from the uncertainty inherent in almost all business organizations. The role of risk management is crucial in managing the inherent risk of any business entity. Furthermore, the emergence of the Covid-19 pandemic in 2020 instituted significant changes that generated an economic crisis which proved very difficult to handle. The level of risk, and internal and external conditions that affect the growth of business activities of banking institutions have become increasingly complex. Therefore, the financial sector is one of the sectors that must be strictly regulated by competent authorities. Currently, the risk management system applied in the banking sector is ineffective and requires more attention. Therefore, there is a need to efficiently optimize the application of risk management on existing systems. The revelation of several fraud cases, such as the client theft fund scandals, data theft, and asset abuse, has highlighted the financial industry's failure in dealing with the risk of fraud. In 2019, the Association of Certified Fraud Examiners (ACFE) reported that the financial and banking sectors were the most disadvantaged out of 41.4% of several industries prone to fraud (ACFE, 2019). Furthermore, a 2018 survey conducted by the Association of Certified Fraud Examiners (ACFE) found that the number of losses caused by fraud is about 5% of an organization's gross income. These losses affect the company's profitability, performance, and value.

ERM programs have attracted attention in several sectors, including banking, insurance, and non-financial organizations (Anton et al., 2020). Furthermore, personnel competence influences the effectiveness of the implementation of risk management within the organization. Therefore, the organization's implementation and effectiveness of risk management cannot be separated from the human factor. Human resources are an essential element in a company and are considered to be the most important actors in intellectual capital. Several ERM structuring practices are known to affect business performance; however, intellectual capital also plays a role in this regard (Kakiya et al., 2019). Intellectual Capital (IC) is essential to the success of an organization because it conveys evident characteristics that, if excluded, determine an organization's success or failure compared to its competitors (Bannany, 2008). The main impediments to implementing the ERM are lack of time, inexperienced staff, and insufficient resources, which is why ERM has not performed as expected.

The samples used in this research were all banking organizations listed on the Indonesia Stock Exchange (IDX) in 2011-2019. Currently, research studies that examine the effect of

implementing enterprise risk management (ERM) and intellectual capital (IC) on the performance in the banking sector are still relatively rare.

2 LITERATURE REVIEW

2.1 Enterprise Risk Management

The relationship between business performance, risk, and risk management reveals inconsistent results. Nevertheless, a positive relation between ERM and company performance has been established (COSO, 2004). Although the ERM programs have no impact on the company's performance and values (González et al., 2020), there is clear evidence of a positive relationship between the implementation of the ERM program and an increase in the company's value (Callahan & Soileau, 2017; Farrell & Gallagher, 2015).

(H1): There is a significant positive association between ERM and firm performance of banking companies in Indonesia

2.2 Intellectual Capital

Intellectual Capital (IC) is currently one of the main drivers of the market climate that stimulate growth and competitiveness (Huang & Wu, 2010). Furthermore, intellectual capital is an intangible asset that creates value for the company (Mavridis, 2005). However, the variation in the relationship between VAIC, financial performance, and company values, making it impossible to identify a consistent trend (Castro et al., 2021). Also, a report by Ozkan (2017), shows that intellectual capital has positive impacts on the financial performance of banks (Ozkan et al., 2017).

(H2): There is a significant positive association between the value added intellectual coefficient (VAIC) and firm performance of banking companies in Indonesia.

3 RESEARCH METHOD

This research uses banking organizations on the Indonesia Stock Exchange in 2011-2019 as a research object. Risk management and ERM data were collected through keyword searches in annual management and corporate governance reports. Furthermore, the determining variables are used to check the existence of a risk management system and the quality or extent of its implementation. Moreover, this research is conducted with VAIC because it utilizes the annual average data from the selected companies, which simplifies analysis. This study employed the estimate of multiple regression models based on panel data to test the hypotheses.

Table 1. Regression models

Model	Regression equation
1	$Y_{i,t+1} = \alpha + \beta_1 CRO_{it} + \beta_2 RiskMap_{it} + \beta_3 Riskmanagementstd_{it} + \beta_4 Hedging_interest_{it} + \beta_5 Hedging_exchange_{it} + \beta_6 Hedging_credit_{it} + \beta_7 Size_{it} + \beta_8 Leverage_{it} + \mu_{it}$
2	$Y_{i,t+1} = \alpha + \beta_1 VAIC_{it} + \beta_2 Size_{it} + \beta_3 Leverage_{it} + \mu_{it}$
3	$Y_{i,t+1} = \alpha + \beta_1 SCE_{it} + \beta_2 HCE_{it} + \beta_3 CEE_{it} + \beta_4 Size_{it} + \beta_5 Leverage_{it} + \mu_{it}$

where: $Y_{i,t+1}$ are different measures of performance (ROA and Tobin's Q) from the data set in the following year. ERM variables are considered dummy variables that take the value of '1' in the case of fulfilling the required condition or '0' otherwise. VAIC calculation use model developed by Pulic (1998). This model also include control variables (size and leverage).

4 RESULTS AND DISCUSSIONS

In the case of CRO, the effect on ROA is negative. This finding is in line with González et al. (2020), which suggests that having a chief risk officer (CRO) can reduce performance while increasing the financial conditions measured by the tendency to default. Furthermore, the risk map, which serves as an indicator for identifying new risks and threats, has a positive but insignificant influence on the company's performance. This result suggests that investors may

think that top management staff decides the risks a company faces and the covered risks. These findings suggest that implementing COSO II or ISO 31000 standards will not improve performance. These findings also support Mikes & Kaplan (2013) assertion that several variables do not answer to how ERM is implemented in any organization.

This research yielded positive results regarding hedging interest and credit towards ROA. However, despite obtaining a positive direction towards ROA, there was no significant result on the performance of the hedge interest rate and credit. As a result, the risk associated with hedging interest rate appears to complement the work of Marami & Dubois (2013), who stated that the purpose of using interest rate derivatives is to ensure that these derivatives are fully aligned with sound risk management practices.

The effect of Hedging Credit on ROA is a positive sign that the company pays attention to credit derivatives, which has become an essential tool for risk management, given that risk, particularly credit risk, is an inevitable aspect of conducting business. Risk management is the leading financial and non-financial component of most companies (Chorafas, 2000). Furthermore, Spuchl'áková et al., (2015) found that effective credit risk management is an integral part of an overall risk management strategy and is necessary for the long-term success of any banking organization.

In general, Intellectual capital has a positive effect on financial performance. Also, when VAIC is broken down into components, it is clear that CEE (Capital Employed Efficiency) and SCE (Structural Capital Efficiency) are positively and significantly related to the organization's overall financial performance, while HCE has a negative impact on performance. Similarly, Rehman et al., (2021) stated that the performance of Islamic Banks in Turkey is negatively impacted by HCE (Human Capital Efficiency). This result may reflect the stock market's view that higher salaries and benefits indicate a weaker HC value (Ferraro & Veltri, 2011). The positive effects of CEE are in line with the findings of Khan & Ali (2017), who concluded that an increase in employee capital increases financial capital. The SCE coefficient also shows that fostering innovation and development with more investment in hierarchies and structures will play a key role in bank profitability. This research observed that the Indonesian banking sector is highly efficient in using financial assets to boost profitability.

Table 2. Results of hypothesis testing (ERM)

Independent Variables	Dependent Variables			
	ROA		Tobin's Q	
	Coefficient	Prob.	Coefficient	Prob.
CRO	-0,003866	0,1521	0,045692	0,1087
Risk Map	-0,001494	0,4621	0,033642	0,1391
Risk Management Std	-0,002607	0,3017	-0,008662	0,6915
Hedging Interest	0,001142	0,7231	-0,004536	0,9109
Hedging Exchange	-0,002886	0,3541	-0,052626	0,1328
Hedging Credit	0,000151	0,9282	-0,003249	0,9086

Note: * Significant at 10%. ** Significant at 5%. *** Significant at 1%

Table 3. Results of hypothesis testing (VAIC)

Independent Variables	Dependent Variables			
	ROA		Tobin's Q	
	Coefficient	Prob.	Coefficient	Prob.
VAIC	0,005136	0,0000*	0,055616	0,0373*

Note: * Significant at 10%. ** Significant at 5%. *** Significant at 1%.

Table 4. Results of hypothesis testing (Disaggregated VAIC)

Independent Variables	Dependent Variables			
	ROA		Tobin's Q	
	Coefficient	Prob.	Coefficient	Prob.
CEE	0,050957	0,0075**	-0,260658	0,4562

HCE	-0,001899	0,5263	-0,016436	0,7009
SCE	0,036855	0,0019**	0,568969	0,1058

Note: * Significant at 10%. ** Significant at 5%. *** Significant at 1%.

5 CONCLUSIONS

The results indicate that for most variables, the Chief Risk Officer (CRO), risk map, and risk management standard used as proxies for implementing an ERM process were statistically insignificant. On the other hand, the capital employed efficiency coefficient (CEE) and structural capital efficiency coefficient (SCE) have the most significant influence on the intellectual capital of the Indonesian banking sector. Also, this research demonstrates that hedging interest and credit risk increases profitability.

In contrast, the human capital efficiency coefficient (HCE) is less effective in adding value to the banking sector. This supports the theory that Enterprise Risk Management (ERM) emphasizes a holistic and comprehensive risk management approach. Therefore, intellectual capital (IC) is an essential component in achieving competitiveness and financial sustainability.

REFERENCES

- ACFE. (2019). *Survei Fraud Indonesia*.
- Anton, S. G., Elena, A., & Nucu, A. (2020). *Enterprise Risk Management : A Literature Review and Agenda for Future Research*.
- Callahan, C., & Soileau, J. (2017). Does Enterprise risk management enhance operating performance? *Advances in Accounting*, 37(March 2017), 122–139. <https://doi.org/10.1016/j.adiac.2017.01.001>
- COSO. (2004). *COSO Enterprise Risk Management — Integrated Framework*. Committee of Sponsoring Organizations of the Treadway Commission, 3(September). <https://doi.org/https://doi.org/10.1504/IJISM.2007.013372>
- El-Bannany, M. (2008). A study of determinants of intellectual capital performance in banks: The UK case. *Journal of Intellectual Capital*, 9(3), 487–498. <https://doi.org/10.1108/14691930810892045>
- Farrell, M., & Gallagher, R. (2015). The Valuation Implications of Enterprise Risk Management Maturity. *Journal of Risk and Insurance*, 82(3), 625–657. <https://doi.org/10.1111/jori.12035>
- Ferraro, O., & Veltri, S. (2011). The value relevance of intellectual capital on the firm's market value: An empirical survey on the Italian listed firms. *International Journal of Knowledge-Based Development*, 2(1), 66–84. <https://doi.org/10.1504/IJKB.2011.040626>
- García Castro, J. P., Duque Ramírez, D. F., & Moscoso Escobar, J. (2021). The relationship between intellectual capital and financial performance in Colombian listed banking entities. *Asia Pacific Management Review*. <https://doi.org/10.1016/J.APMRV.2021.03.002>
- Huang, Y. C., & Wu, Y. C. J. (2010). Intellectual capital and knowledge productivity: The Taiwan biotech industry. *Management Decision*, 48(4), 580–599. <https://doi.org/10.1108/00251741011041364>
- Kakiya, G., Rono, L., & Mose, J. (2019). Effect of Risk Management, Intellectual Capital on Performance of State Corporations in Kenya: Moderating Approach. *International Journal of Business and Economic Sciences Applied Research*, 12(3). <https://doi.org/10.25103/ijbesar.123.06>
- Khan, S. N., & Ali, E. I. E. (2017). The Moderating Role of Intellectual Capital Between Enterprise Risk Management and Firm Performance: A Conceptual Review. *American Journal of Social Sciences and Humanities*, 2(1), 9–15. <https://doi.org/10.20448/801.21.9.15>
- Marami, A., & Dubois, M. (2013). Interest Rate Derivatives and Firm Value: Evidence from Mandatory Versus Voluntary Hedging. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.2336094>
- Mavridis, D. G. (2005). *Intellectual Capital Performance Drivers in the Greek Banking Sector*. 28(5), 43–62.
- Mikes, A., & Kaplan, R. S. (2013). Managing Risks: Towards a Contingency Theory of Enterprise Risk Management. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.2311293>
- Otero González, L., Durán Santomil, P., & Tamayo Herrera, A. (2020). The effect of Enterprise Risk Management on the risk and the performance of Spanish listed companies. *European Research on Management and Business Economics*, 26(3), 111–120. <https://doi.org/10.1016/j.iedeen.2020.08.002>
- Ozkan, N., Cakan, S., & Kayacan, M. (2017). Intellectual capital and financial performance: A study of the Turkish Banking Sector. *Borsa Istanbul Review*, 17(3), 190–198. <https://doi.org/10.1016/j.bir.2016.03.001>
- Spuchl'áková, E., Valášková, K., & Adamko, P. (2015). The Credit Risk and its Measurement, Hedging and Monitoring. *Procedia Economics and Finance*, 24(July), 675–681. [https://doi.org/10.1016/s2212-5671\(15\)00671-1](https://doi.org/10.1016/s2212-5671(15)00671-1)
- Ur Rehman, A., Aslam, E., & Iqbal, A. (2021). Intellectual capital efficiency and bank performance: Evidence from islamic banks. *Borsa Istanbul Review*. <https://doi.org/10.1016/j.bir.2021.02.004>

The Effect of Stock Liquidity on the Capital Structure of Companies in Indonesia

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ABSTRACT: Traditional capital structure theories have identified several determinants of capital structure choices such as size, growth opportunities, and profitability. This study examines the relationship between stock liquidity and the capital structure of companies in Indonesia. This study uses secondary data obtained from the Thomson-Reuter Datastream. The population of this study is companies listed on the Indonesia Stock Exchange (IDX) for the 2016-2020 period with a sample of 647 companies. In testing the hypothesis, this study uses a quantitative method with panel data regression which is used to analyze the influence of liquidity on capital structure decisions. Based on the research results in more developed markets, it can be said that the stock liquidity variable was not proven to have significant results from testing three proxies, namely amihud, modified liquidity ratio, and modified turnover.

1 INTRODUCTION

Most of the studies that tested the relationship between stock liquidity and company capital structure took samples of US companies. Research by Lipson and Mortal (2009) and Martell et al. (2006) document that significantly more liquid equities do not use leverage. The results of both studies are based exclusively on US companies. There is no evidence as to whether these results can be extended to other countries where capital markets are underdeveloped, information asymmetry, and corporate ownership is concentrated. In this study, the author examined companies in Indonesia as a developing country context, with conditions of a high level of information asymmetry, capital markets that are still developing, unlike in developed countries. Based on these conditions, the authors analyzed the effect of stock liquidity on capital structure in Indonesia in the 2016 -2020 period.

2 THEORETICAL BACKGROUND

2.1 *Liquidity and Capital Structure*

Based on research that has been done previously, the relationship between stock liquidity and the company's debt ratio is still different. According to Lipson and Mortal (2009) stated in their research that companies that have high stock liquidity will have a lower debt ratio. In line with this research, Udomsirikul et al. (2011) also stated that stock liquidity has a significant influence on companies in choosing funding sources.

However, unlike previous research, and ElBannan (2017) state that stock liquidity does not have a significant influence on companies in choosing funding sources. Based on this research, the hypothesis proposed is that stock liquidity has a negative effect on the company's debt.

2.2 *Financing Alternatives in Indonesia*

In 2020, Indonesia's domestic credit value is around 38.7% of GDP, bonds around 2.8%, and market capitalization is around 46.9% of Indonesia's total GDP. Since the early 90s, before the Indonesian AFC equity market experienced extraordinary growth, the biggest driver in the capital market in Indonesia was the privatization of State-Owned Enterprises (SOEs). Currently, the market value of SOEs is 25% of the Indonesian Stock Market Capitalization. They are one of the most liquid stocks traded and are part of LQ45 (the 45 most traded stocks on the exchange). The main problem with the Indonesian stock market is its limited size and liquidity with a market

value of only 46.7% of GDP in 2018, which is quite low compared to other ASEAN countries. Liquidity is also quite low, with 0.14% (of market cap) daily trading in 2015. The next issue is concentration. Of the 532 companies listed in 2015, only 11 companies controlled 50% of the market capitalization. The top 45 liquid stocks traded make up about 69% of the market cap. The market potential in Indonesia is very large and can be utilized by companies in Indonesia as a tool to carry out capital market financing.

3 GETTING STARTED

3.1 Data Sample

This study uses secondary data, namely companies listed on the Indonesia Stock Exchange in 2016-2020. Financial data for each company were obtained through quarterly and annual financial reports for each company, as well as an overview report from the IDX either through the website or in person. Quarterly historical stock price data were obtained from Thomson-Reuter Datastream. The final sample encompasses a total of 437 firms.

3.2 Liquidity Measures

The Amihud Illiquidity Ratio measures the absolute return of shares on day i in year y compared to the trading volume of shares of Amihud (2002), where the calculation of R_{iyt} is the return of stock i in month t and year y . $DVOL_{iyt}$ shows the volume of stock trading each month in nominal rupiah.

$$ILLIQ_{iy} = \frac{1}{D_{iy}} \sum_{t=1}^{D_{iy}} \frac{|R_{iyt}|}{DVOL_{iyt}} \quad (1)$$

The second independent variable used is modified turnover, namely the ratio of the number of shares traded divided by the volatility of income.

$$MT_i = \frac{VOL_{i,t}}{N_{i,t} * VOLATILITY} \quad (2)$$

Modified turnover calculation where $VOL_{i,t}$ is the number of shares i traded in month t and $N_{i,t}$ is the number of shares i in month t outstanding and $VOLATILITY$ is income volatility. The third stock variable is the modified liquidity ratio, which is the ratio of the number of daily stock trading volumes divided by the number of stock returns and income volatility.

$$MLR_i = \frac{\sum VOL_{i,t}}{\sum_t |R_{iyt}| * VOLATILITY} \quad (3)$$

Where $VOL_{i,t}$ is the number of shares i traded in month t , then R_{iyt} is the return on shares i in month t , and $VOLATILITY$ is income volatility.

3.3 Leverage

Two alternative measures of leverage, namely book leverage and market leverage. Book value of equity is total assets subtracted by preferred stock plus deferred taxes and debt. Book value of debt is simply total assets subtracted by book value of equity. Market value of equity is the product of the number of shares outstanding and the current stock price. Market value of assets is total assets subtracted by book equity plus market equity. Market leverage is book debt divided by market value of assets.

3.4 Control Variables

This study considers several control variables that are used because they are proven to be important and influential in the capital structure and debt ratio as in previous studies. The control variables used in this study are profitability, firm size, growth opportunities, non-debt tax shields, and tangibility.

4 LAYOUT OF TEXT

4.1 Summary Statistics

Table 1. Statistics on each variable

	Mean	Median	Max	Min	Std.Dev
Illiquid	4.73E -08	2.80E-10	3.37E-06	0	1.84E-07
MLR	2.26E+10	85850463	6.28E+12	0	2.94E+11
MT	0.173977	0.008580	29.83614	0	1.206147
Prof	0.003275	0.017900	2.214300	-1.269400	0.157914
NDT	0.009112	0.002440	0.716260	0	0.032582
TANG	0.561864	0.563530	18.88630	0.007770	0.672832
SIZE	19.44685	19.37400	23.95600	0.281000	1.832081
GROW	1.495579	0.957920	78.76963	-90.83591	6.341701
BL	0.732716	0.665520	7.042860	0.000590	0.544699
ML	0.553335	0.583480	0.999670	0.000270	0.265967

Based on the table above, the company debt ratio proxied by the book leverage (BL) variable during the period of observation has a maximum value of 7.042860 owned by PT Steady Safe in 2016 and a minimum value of 0.00059 owned by PT Impack Pratama Industri in 2016. The average value on book leverage is 0.730690 with a standard deviation of 0.00059. The market leverage (ML) variable during the observation period has a maximum value of 0.99960 which is owned by PT Saranacentral Bajatama in 2019 and a minimum value of 0.00027. The average value on market leverage is 0.469493 with a standard deviation of 0.305231.

4.2 Regression Analysis

Table 2. Book leverage on other variables

Variable	Hypothesis	Book Leverage		
Illiquid	-	-2.522526 (0.0118)	-	-
MLR	-	-	0.455214 (0.6491)	-
MT	-	-	-	0.122616 (0.9024)
Prof	-	0.640642 (0.5219)	0.825278 (0.4094)	0.818525 (0.4133)
NDT	+	0.041546 (0.9669)	0.009351 (0.9925)	-0.010052 (0.9920)
TANG	+	-3.845649 (0.0001)	-3.916151 (0.0001)	-3.897914 (0.0001)
SIZE	+	-8.136822 (0.000)	-8.450195 (0.000)	-8.432560 (0.000)
GROW	-	-1.353712 (0.1762)	-1.245709 (0.1788)	-1.344959 (0.1790)
Illiquid	-	1.596893 (0.1107)	-	-
MLR	-	-	-0.229116 (0.8188)	-

MT	-	-	-	-0.109169 (0.9131)
Prof	-	-2.794873 (0.0053)	-2.687034 (0.0073)	-2.683595 (0.0074)
NDT	+	1.149855 (0.2505)	1.101972 (0.2708)	1.111825 (0.2665)
TANG	+	3.251811 (0.0012)	3.215372 (0.0014)	3.209124 (0.00014)
SIZE	+	9.429170 (0.000)	9.298150 (0.000)	9.284623 (0.000)
GROW	-	0.855808 (0.3923)	0.856871 (0.3918)	0.856433 (0.3920)

The regression results with the dependent variable book leverage show that the amihud proxy has a positive insignificant effect, then the modified liquidity ratio proxy has a positive insignificant effect and the modified turnover proxy has a positive insignificant effect. amihud proxy has a positive insignificant effect, then the modified liquidity ratio proxy has a negative insignificant effect, and the modified turnover proxy has a negative insignificant effect. This shows that in this study the independent variable has no effect on the company's debt ratio, because the stock liquidity variable is not proven to have significant results from testing the three proxies, namely amihud, modified liquidity ratio, and modified turnover.

These results are inconsistent with Lipson and Mortal (2009) and using US firms and Udomsirikul et al. (2011) using Thai companies in contrast to a study conducted by Sharma and Paul (2015)) on the India Stock Exchange, they found no evidence for a significant relationship between stock liquidity and leverage levels in Indian companies.

5 CONCLUSIONS

The results showed that in this study the independent variable has no effect on the company's debt ratio, because the stock liquidity variable was not proven to have significant results from testing three proxies, namely amihud, modified liquidity ratio, and modified turnover. Based on the results of the study, it is known that in the control variable there are three proxies that have a significant influence on book leverage. Profitability proxies have a significant negative effect. the tangibility proxy has a positive significant effect, and the size proxy has a positive significant effect.

REFERENCES

- Amihud, Y. (2002). Illiquidity and stock returns: Cross-section and time-series effects. *Journal of Financial Markets*, 5(1), 31–56.
- ElBannan, M. A. (2017). Stock market liquidity, family ownership, and capital structure choices in an emerging country. *Emerging Markets Review*, 33, 201–231.
<https://doi.org/10.1016/j.ememar.2017.11.001>
- Lipson, M. L., & Mortal, S. (2009). Liquidity and capital structure. *Journal of Financial Markets*, 12(4), 611–644.
- Martell, R., Cooper, M., Daniel, N., Denis, D., Denis, D., & Hirshleifer, D. (2006). *On Capital Structure and the Liquidity of a Firm's Stock*.
- Sharma, P., & Paul, S. (2015). Does Liquidity Determine Capital Structure? Evidence from India. *Global Business Review*, 16(1), 84–95.
- Udomsirikul, P., Jumreornvong, S., & Jiraporn, P. (2011). Liquidity and capital structure: The case of Thailand. *Journal of Multinational Financial Management*, 21(2), 106–117.

Emerging Market Bonds Liquidity Trend Analysis During The Covid-19 Pandemic

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ABSTRACT: This paper presents a method for measuring bond liquidity on emerging market bond that can fill-in the existing gap related to the lack of empirical research in this domain. The limited previous research on the response of bond liquidity in emerging countries is the purpose of this paper. Using the bid/offer spread data on emerging market bonds, this research was conducted with a descriptive quantitative method which uses data in the form of presentation, frequency, average value which are processed into statistical formula with samples from the government bonds listed in Indonesia, China, and India. This paper documented that bid/offer spreads on emerging market bonds drastically widened in late February and early March reflecting a disrupted trading activity. The research has profound implications for future studies of bond liquidity and may one day help solve the problem of liquidity measurement for cross country investors as their consideration for investing.

1 INTRODUCTION

The global COVID-19 pandemic has affected financial markets worldwide. Whereas the shock is not simply a demand management problem but a multi-faceted crisis that will require monetary, fiscal and health policy responses. (McKibbin & Fernando, 2020). The composition of capital flows has been altered by the increasing role of investment funds in the global system and it manifests in the volatility of capital flows and its sensitivity to other drivers, particularly the global financial cycle (BIS, 2021). That being the case to emerging markets to experience a highly exposed to an abrupt increase of investor's risk aversion through mass withdrawals by foreign investors seeking safer assets and highlighting their over-reliance on financing, as emphasized by the portfolio flows recorded during the first phase of the COVID-19 pandemic (Baldwin & Weder, 2020).

Nonetheless, the impact of the COVID-19 pandemic on financial markets has been largely handled in relation to the stock market in developed countries (Alfaro et al., 2020; He et al., 2020; Rameli and Wagner, 2020). However, the scope of the impact of COVID-19 on the debt market is relatively small (Acharya and Steffen, 2020; Haddad et al., 2020; and Kargar et al., 2020). This study is limited to developed countries, and does not discuss EM debt.

We measure the extent and evolution of emerging market bond liquidity by examining the transaction of bond trading. We analyze how the widened demand for liquidity during the crisis differed across bonds. This paper studies the liquidity trend reaction to COVID-19. This analysis also serves three purposes. First, to fill the existing void related to the lack of empirical research in this domain. Second, this research can be added to the literature of financial market responses to the economic impact of COVID-19, providing useful insight for investors, traders, risk managers and regulatory agencies. Third, we document that the bid-ask spread on emerging market bonds drastically widened in late February and early March reflecting somewhat a disrupted trading activity.

2 LITERATURE REVIEW

2.1 Liquidity

Investors want three things from the market, namely liquidity, liquidity, and liquidity. (Handa & Schwartz, 1996). Liquidity is a very important consideration for investors to invest their capital

in the market. According to Bodie, Kane, and Marcus (2011), the liquidity of an asset is the ease and speed of selling the asset at a fair value in the market. The calculation used in this study is based on transaction costs which uses the bid-ask spread as the main indicator of liquidity calculations. The use of the bid-ask spread is the best calculation that best reflects the actual market conditions because the use of this bid-ask spread indicates the market price depending on the side of the market that started the trade. The bid price is the highest price the dealer is willing to buy the asset and at which the investor intends to sell it, while the ask price is the lowest price at which the dealer is willing to sell the asset. (Gabrielsen, Marzo, & Zagaglia, 2012)

A liquid bond is bond that much circulate to amongst holder bonds and often traded by investor at market bonds.

In this paper, we use the transaction cost based measurement whereas in his research, (Kargar et al., 2021) stated that among measurements with transaction costs, the most commonly used indicator of market liquidity is the bid-ask spread because through it can provide insight into various information in the market. The virtue of using a bid-ask spread lies in the fact that the market price depends on the side of the market that started the trade. Where buyer-initiated trades are completed at the ask price, while seller-initiated trades are concluded at the bid price. The difference between the best (lowest) price and the best (highest) that makes up the ask bid price bid-ask spread.

According to (Gabrielsen et al., 2012) stated that the measurement of the *bid-ask spread* can be seen as follows:

$$S_t = A_t - B_t$$

Where A_t represents the *ask price*, and B_t represents the *bid price*, and S_t is the *spread* at during period t .

2.2 Emerging Market

The World Bank defines *emerging markets* as having a gross domestic product (GDP) per capita of less than \$6,000 USD. *Emerging markets* can be characterized by high levels of economic growth (Muller, 2018). An emerging is a market in an emerging market that is increasingly engaging with global markets as it grows. Emerging markets are in transition from a low-income, less developed, to preindustrial economy to a modern industrial economy with a high standard of living. (Hoskisson, Eden, Lau, & Wright, 2000)

Emerging market economies tend to shift from activities focused on agriculture and resource extraction to industrial and manufacturing activities. Emerging market economy governments typically employ deliberate industrial and trade strategies to promote economic growth and industrialization. This strategy includes export-driven growth and import-substitution industrialization, although the former is more typical of an economy considered to be developing as it promotes more engagement and trade with the global economy. They also often pursue domestic programs such as investing in the education system, building physical infrastructure and enacting legal reforms to secure investors' property rights.

2.3 COVID-19

Covid-19 or the 2019 novel coronavirus or the severe acute respiratory syndrome corona virus 2 (SARS-CoV-2) are enveloped positive sense RNA viruses ranging from 60 nm to 140 nm in diameter with spike like projections on its surface. This new virus outbreak has challenged the economic, medical and public health infrastructure all around the world. Covid-19 transmits as droplet pathogen and is placed in category B of infectious agents by China National Health Commission. Patients should be isolated and be placed in separate rooms or cohorted together. (Singhal, 2020). The COVID-19 proxy we used in this analysis was the daily confirmed cases from all the emerging markets country worldwide.

3 METHODS

The research design used in this study is quantitative descriptive which is a study that uses data in every classification in shape of presentation, frequency, mean, and so on that systematically processed with statistical formula. This study is also as a replication study from the recent study by Goldberg and Reed (2020) and Gubareva (2020) with the dependent variable is COVID-19 effect and the independent variable is the liquidity of emerging market bonds.

The population used in this study are the government bonds that are listed as emerging market in Thomson Refinitiv Eikon with the total of 37 out of 50 EM government bonds and the daily confirmed cases of COVID-19 of EM countries in the period from December 2019 until October 2021.

The data analysis method used in this analysis is the descriptive analysis and the calculation used in this study was the Microsoft Excel. The calculation used in this study was meant to calculate the bid-ask spread of EM bonds and daily confirmed COVID-19 case which used secondary data from Thomson Reuters Refinitiv (Eikon) to obtain daily ask and bid price then we subtracted the ask price to bid price and we gathered the mean. The hypothesis in this study are Covid-19 has a positively significant impact toward the emerging markets bond liquidity, bond ratings has a positive significant impact toward the emerging markets bonds liquidity, the bond outstanding amount has a significant impact toward the emerging market bonds liquidity. We also conducted the Crosstab test and Chi Square test towards the data we gathered.

4 RESULTS

The overall yield of the average spread bond can be seen in the table 1 in appendix. It can be seen from the graph that the country with the highest spread are Kazakhstan, Bulgaria, and Ghana. Each country has an average *spread* weekly of 288.14, 243.14, and 197.74. While country with the lowest spread are Israel, India, and Philippines with the spread value of 3.83, 4.98, and 17.87.

Kazakhstan as the country with the highest average bid ask spread, according to the World Bank (2021) has experienced extraordinary economic performance, but the trend of declining liquidity conditions throughout 2020 was driven by high volatility as a result of the impact of Covid-19 due to some Most of Kazakhstan's population resides in rural areas which are economically isolated with access and public services and vulnerability to poverty which exacerbates bond liquidity conditions in Kazakhstan.

In Bulgaria, the trend of liquidity conditions in terms of the difference between supply and demand and operating volumes decreased during March and April, driven by the high volatility observed in international markets as a result of the effects of the COVID-19 pandemic and the government's incompetence in responding to the COVID-19 outbreak. Given the poor health administration that is rife with nepotism, it does not provide a coherent response.

Israel, as country with the most liquid state bonds with a bid ask spread of 3.83, it can be said that it has improved and made good progress of around 500 bps throughout the year. This increase indicates that there is a selection of demands that arise both domestically and internally.

To see the movement of the bid ask spread of bonds in emerging markets in more detail, we divided the graph of the bid ask spread of bonds by year into two graphs, namely 2020 and 2021, see the graph 1 in appendix. For the December 2019 period it is not made into a graph, because there is only one month of the research period.

From the graph of 2020, there is a very significant difference can be seen in the form of fluctuations in the graph line spread at the beginning of 2020 and during the first wave of COVID-19, from March 2020 to August 2020. In the early period of COVID-19 there was a spike in spreads, especially in Brazil with the blue line. The second highest spread is Bulgaria which is indicated by the green line, and the spread third highest spread is Georgia which is indicated by the blue line.

In the graph of 2021, from all bid ask spreads of countries' emerging markets, the chart line spread seems to fluctuate again in the third wave, namely March 2021. In 2021, Brazil's highest spread as seen in the blue line fluctuated significantly until the end of the research period. The second highest spread is held by Georgia with the blue line, and Kazakhstan is in the third highest position. It can be seen from the graph above that Brazil, which is symbolized by the yellow line, is highly volatile with significant peak differences. It can be seen that the higher the spread of a

country, the less desirable or illiquid the country's bonds are. For 2021, the least liquid or least desirable countries are Mexico, followed by Georgia and Kazakhstan.

5 CONCLUSION

Amidst the pandemic outbreak, diverse types of lockdowns, curfew, travel restrictions, and other policies, envisaging to increase social distance between people, have been put in place to save lives in both the developed and developing countries. Such lockdown and mobility restrictions have negatively impacted financial markets liquidity, in general, and fixed-income trading activities. Our research addresses the trends of the pandemic-triggered uncertainty on liquidity of government bonds of the emerging market countries. We analyze the liquidity through the bid–ask spread. We find that liquidity reach their apogee in early March 2020, December 2020, and March 2021. The findings of this research are potentially useful for market participants and policy makers in the fixed-income domain of global finance. In particular, our results are capable of providing valuable insights for elaborating policy solutions, aimed to help the investors that wanted to invest in EM economies from ongoing severe systemic crises.

REFERENCES

- Baldwin, R., & Weder, B. (2020). *Economics in the Time of COVID-19*. Retrieved from <https://voxeu.org/content/economics-time-covid-19>
- BIS. (2021). *Changing Patterns of Capital Flows*.
- Gabrielsen, A., Marzo, M., & Zagaglia, P. (2012). Measuring Market Liquidity: An Introductory Survey. In *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.1976149>
- Handa, P., & Schwartz, R. A. (1996). Limit order trading. *Journal of Finance*, 51(5), 1835–1861. <https://doi.org/10.1111/j.1540-6261.1996.tb05228.x>
- Hoskisson, R. E., Eden, L., Lau, C. M., & Wright, M. (2000). Strategy in emerging economies. *Academy of Management Journal*, 43(3), 249–267. <https://doi.org/10.2307/1556394>
- Kargar, M., Lester, B., Lindsay, D., Liu, S., Weill, P.-O., & Zúñiga, D. (2021). Corporate Bond Liquidity during the COVID-19 Crisis. *The Review of Financial Studies*, 34(11), 5352–5401. <https://doi.org/10.1093/rfs/hhab063>
- McKibbin, W. J., & Fernando, R. (2020). *The Global Macroeconomic Impacts of COVID-19: Seven Scenarios* (Vol. 1).
- Muller, D. (2018). Emerging Markets – Powerhouse of global growth. *Ashmore*, (May), 2–5. Retrieved from http://www.ashmoregroup.com/sites/default/files/article-docs/MC_10_May18_2.pdf
- Singhal, T. (2020). A Review of Coronavirus Disease-2019 (COVID-19). *Indian Journal of Pediatrics*, 87(4), 281–286. <https://doi.org/10.1007/s12098-020-03263-6>

Innovative Work Behavior in Public Sector Organization: The Effect of Proactive Personality, Work Engagement, and Transformational Leadership

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ABSTRACT: The purpose of this study was to investigate how innovative work behavior in the public sector can be influenced by proactive personality, work engagement, and transformational leadership. The sample data was collected using purposive sampling method from 461 employees in the Indonesian public sector organizations through an online survey. The hypotheses were tested using Structural Equation Modeling LISREL. This study contributes to predictors that influence innovative work behavior given the scant information on innovation in the public sector. The findings revealed that proactive personality, transformational leadership, and work engagement positively impacted innovative work behavior. The study further demonstrated the mediating role of work engagement between a proactive personality and transformational leadership on innovative work behavior. Therefore, organizations should promote proactive personalities and transformational leadership to boost innovation and enhance employee engagement.

1 INTRODUCTION

Organizations need innovation since it builds competitive advantage and organizational flexibility, leading to business uniqueness and increased chances for survival (Stanescu et al., 2020). In recent years, the need for efficiency in the public sector has raised the demand for innovation (Park & Jo, 2018). Innovation improves the quality of services, efficiency, and the ability to solve various societal problems (de Vries et al., 2015; Demircioglu & Audretsch, 2018). However, the level of innovation and support for innovative behaviors among public employees is wanting (Bos-Nehles et al., 2017). Previous studies show how transformational leadership, personal traits such as proactive personality, and work engagement influence employee innovativeness (Mubarak et al., 2021; Mutonyi et al., 2020; Suseno et al., 2020). This study aimed to examine the role of proactive personality, transformational leadership, and work engagement in employees' innovative work behavior in the public sector. Also, the study explored how these constructs can influence innovative work behavior through mediation.

2 LITERATURE REVIEW

Innovative work behavior involves an employee's intentional efforts to provide new and useful results for the organization (Janssen, 2000). Various studies agree that innovative work behavior consists of three sets of intentional activities: generating, introducing/promoting, and realizing new ideas (De Jong & Den Hartog, 2007; Janssen, 2000). First, after identifying a problem, an individual generates ideas on the possible solution. Then, they mobilize support for the idea through idea promotion, which is then released as an innovation, program, product, or process (Scott & Bruce, 1994; Suseno et al., 2020). Previous studies argue that innovative work behavior is influenced by proactive employee personality and transformational leadership (Lai et al., 2020; Mubarak et al., 2021; Stanescu et al., 2020; Suseno et al., 2020). Employees with a proactivity analyze the current situation and has a tendency to be more creative, able to take risky decisions, facilitate change for improvement, and are committed which will ultimately show innovative work behavior (Mubarak et al., 2021). Leaders who exhibited transformational leadership style

encourage subordinates to be able to use their thinking abilities to see problems from various sides and find solutions to problems (Lai et al., 2020).

Previous studies argue that work engagement mediates the relationship between proactive personality and transformational leadership on innovative work behavior (Li et al., 2019; Mubarak et al., 2021). However, the mediating role of work engagement is yet to be examined (Mubarak et al., 2021). Proactive employees are more active in extra tasks and face problems, which increases their problem-solving abilities. Also, work engagement was found to positively influence innovative work behavior (Mubarak et al., 2021; Stanescu et al., 2020).

3 METHOD

Based on literature reviews and previous research, the following are the hypotheses for this study:

- H1: Proactive personality has a positive effect on innovative work behavior.
- H2: Transformational leadership has a positive effect on innovative work behavior.
- H3: Work engagement has a positive effect on innovative work behavior.
- H4: Proactive personality has a positive effect on work engagement.
- H5: Transformational leadership has a positive effect on work engagement.
- H6: Work engagement mediates the relationship between proactive personality and innovative work behavior.
- H7: Work engagement mediates the relationship between transformational leadership and innovative work behavior.

The data was collected from employees in the public sector organizations through purposive sampling techniques. The data was obtained by distributing self-administered questionnaires. The study recorded 461 responses measured using a 7-point Likert scale from strongly disagree to strongly agree. The primary data was analyzed using SPSS and LISREL software.

4 RESULTS AND DISCUSSION

264 (57%) respondents were males, while 197 (43%) were females. (83.7%) of the respondents aged below 35 years, while 16.3% were over 35 years old. Regarding academic qualification, 90.9% of the respondents were bachelor's degree graduates who had worked with the various assemblies for different durations. 36.9% worked for 1-5 years, 21.9% worked for 5-10 years, while 41.2% of the respondents had more than 10 years of work experience.

The measurement model was assessed using validity, reliability, and goodness-of-fit indices. The validity of the model was evaluated by standardized factor loadings, while reliability was evaluated through composite reliability and variance extracted. The evaluation indicated that the study indicators were valid and reliable. The model also showed an acceptable fit.

In this model, proactive personality has a significant positive effect on IWB. This result supports hypothesis H1, which associates proactive behaviors and innovativeness. Next, the study analyzed the predictive effect of transformational leadership on innovative work behavior. The findings support H2 by showing that transformational leadership is a statistically significant predictor of innovative work behavior. In addition, the findings show a significant relationship between work engagement and employees' innovative work behavior, providing support for H3. Also, proactive personality positively correlated with work engagement, supporting hypothesis H4. The study shows the association between transformational leadership and work engagement, supporting H5. Hypothesis 6 predicted that work engagement would mediate the relationship between proactive personality and innovative work behavior. The results show that indirect effect (PP → WE → IWB) is statistically significant, hence supporting H6. Work engagement also mediates the relationship between transformational leadership and innovative work behavior (TL → WE → IWB), therefore H7 is supported.

The current findings extend the previous research by explaining antecedents of innovative work behavior. This study explains how proactive personality influences innovativeness among employees. It aligns with the previous study by Mubarak et al. (2021) and Suseno et al. (2020) that found a positive relationship between proactive personality and innovative work behavior. The current study findings also demonstrated that proactive employees are willing to change their

environment and create ways of operation at their workplace. Proactive employees are important in fostering innovation and achieving organizational goals.

The findings also show the significance of transformational leadership on innovative work behavior, aligning with the previous study (Afsar & Umrani, 2020; Stanescu et al., 2020). Managers who practice transformational leadership support and promote their staff to apply different ways of solving problems, hence impacting their innovative behavior at the workplace.

Also, the study shows that employees with higher work engagement will increase innovative work behavior. The current findings are consistent with a study conducted by Mubarak et al. (2021) and Li et al. (2019). They suggest that highly engaged employees will involve more in the innovation process, thus showing innovative work behavior in the workplace.

This study extends previous study by explaining antecedents of work engagement. The empirical findings that proactive personality influences work engagement. This confirms the effect which has also been investigated in previous studies (Mubarak et al., 2021). The proactive personality exhibited by employees encourages higher engagement, exhibits greater energy at work, absorption, and also dedication in the task they perform.

The current finding also shows that transformational leadership style exhibited by leaders could encourage higher work engagement and make staff engaged. This finding also aligns with previous research conducted by Lai et al. (2020) that suggest transformational leadership style will encourage higher level of engagement exhibited by employees. It can be explained that if leaders use transformational leadership, it could create a positive environment, contribute positively to employees' minds, support a supportive climate, and motivate employees. Such environment created by leaders has a positive impact on increasing engagement at the workplace.

Furthermore, the study found that work engagement is a mediator between proactive personality and innovativeness (Mubarak et al., 2021). It suggests that proactive employees are significantly engaged in their work and organization improvement through innovation. The results further show that work engagement is a mediator between transformational leadership and innovative work behavior. The current study aligns with Li et al. (2019) on the mediating role of work engagement between transformational leadership and innovative work behavior. Transformational leadership motivates followers to be devoted and improve their workplace engagement. Also, increased workplace involvement improves innovative thinking and behavior.

5 CONCLUSION AND SUGGESTION

The results show that proactive personality, transformational leadership, and work engagement significantly impact innovative work behaviors. The analysis indicated that work engagement mediates between proactive personality and transformational leadership. Meanwhile, transformational leadership increases engagement and improves innovative work behavior in public organizations. Furthermore, the study indicates that proactive staff improve engagement and foster innovative work behaviors. The variables discussed strengthen previous work by establishing keys for innovation in the public sector.

These findings suggest that a proactive personality is a beneficial personal resource. Therefore, Public sector organizations need to improve human resource management designs to identify proactive job applicants or employees. Transformational leadership should be applied in organizational contexts to foster innovative work behavior through critical thinking and employee support. Organizations should promote and create engagement-oriented HRM resources besides developing a good reputation to make employees pride themselves and improve engagement. Overall, public sector organizations should promote proactive personality, transformational leadership, and employee engagement at the workplace.

6 LIMITATIONS AND FUTURE DIRECTIONS

The current research has limitations that should be mentioned. First, the questionnaire is self-reported. It may result in common method bias. Future study should consider comprehensive multiple assessments to reduce the bias. Second, the research consisted of cross-sectional research design. Hence, future research should consider some procedures to collect data at different times to reduce bias. Third, data is collected from a single Indonesian public sector organization, which

may question of the generalization of the current research. Therefore, to provide a more reasonable basis for generalizing the results, the research should consider different contexts and areas.

REFERENCES

- Afsar, B., & Umrani, W. A. (2020). Transformational leadership and innovative work behavior: The role of motivation to learn, task complexity and innovation climate. *European Journal of Innovation Management*, 23(3), 402–428. <https://doi.org/10.1108/EJIM-12-2018-0257>
- Bos-Nehles, A., Bondarouk, T., & Nijenhuis, K. (2017). Innovative work behaviour in knowledge-intensive public sector organizations: the case of supervisors in the Netherlands fire services. *International Journal of Human Resource Management*, 28(2), 379–398. <https://doi.org/10.1080/09585192.2016.1244894>
- De Jong, J. P. J., & Den Hartog, D. N. (2007). How leaders influence employees' innovative behaviour. *European Journal of Innovation Management*, 10(1), 41–64. <https://doi.org/10.1108/14601060710720546>
- de Vries, H., Bekkers, V. J. J. M., & Tummers, L. G. (2015). Innovation in the Public Sector: A Systematic Review and Future Research Agenda. *SSRN Electronic Journal*, January. <https://doi.org/10.2139/ssrn.2638618>
- Demircioglu, M. A., & Audretsch, D. B. (2018). Conditions for complex innovations : evidence from public organizations. *The Journal of Technology Transfer*, 0123456789. <https://doi.org/10.1007/s10961-018-9701-5>
- Janssen, O. (2000). Job demands, perceptions of effort–reward fairness and innovative work behaviour. *Journal of Occupational and Organizational Psychology*, 73, 287–302.
- Lai, F. Y., Tang, H. C., Lu, S. C., Lee, Y. C., & Lin, C. C. (2020). Transformational Leadership and Job Performance: The Mediating Role of Work Engagement. *SAGE Open*, 10(1). <https://doi.org/10.1177/2158244019899085>
- Li, H., Sajjad, N., Wang, Q., Ali, A. M., Khaqan, Z., & Amina, S. (2019). Influence of transformational leadership on employees' innovative work behavior in sustainable organizations: Test of mediation and moderation processes. *Sustainability (Switzerland)*, 11(6), 1–21. <https://doi.org/10.3390/su11061594>
- Mubarak, N., Khan, J., Yasmin, R., & Osmadi, A. (2021). The impact of a proactive personality on innovative work behavior: the role of work engagement and transformational leadership. *Leadership and Organization Development Journal*, 42(7), 989–1003. <https://doi.org/10.1108/LODJ-11-2020-0518>
- Mutonyi, B. R., Slåtten, T., & Lien, G. (2020). Empowering leadership, work group cohesiveness, individual learning orientation and individual innovative behaviour in the public sector: empirical evidence from Norway. *International Journal of Public Leadership*, 16(2), 175–197. <https://doi.org/10.1108/ijpl-07-2019-0045>
- Park, S., & Jo, S. J. (2018). The impact of proactivity, leader-member exchange, and climate for innovation on innovative behavior in the Korean government sector. *Leadership and Organization Development Journal*, 39(1), 130–149. <https://doi.org/10.1108/LODJ-09-2016-0216>
- Scott, S. G., & Bruce, R. A. (1994). Determinants of Innovative Behavior: A Path Model of Individual Innovation in the Workplace. *Academy of Management Journal*, 37(3), 580–607. <https://doi.org/10.5465/256701>
- Stanescu, D. F., Zbucnea, A., & Pinzaru, F. (2020). Transformational leadership and innovative work behaviour: the mediating role of psychological empowerment. *Kybernetes*, 50(5), 1041–1057. <https://doi.org/10.1108/K-07-2019-0491>
- Suseno, Y., Standing, C., Gengatharen, D., & Nguyen, D. (2020). Innovative work behaviour in the public sector: The roles of task characteristics, social support, and proactivity. *Australian Journal of Public Administration*, 79(1), 41–59. <https://doi.org/10.1111/1467-8500.12378>

The Determinants of Cash Holdings and CH-SOA on Non-Financial Firms Listed on IDX

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ABSTRACT: According to pecking order theory, to minimize asymmetric information cost, firms will need to finance their investment activities first from their internal financing and finally external financing. Cash inflows and cash outflows are not perfectly synchronized; therefore, cash holdings act as a buffer. This paper aims to investigate the determinants of cash holdings and estimate the Cash Holdings Speed of Adjustment or CH-SOA on non-financial firms listed on IDX. The results suggest that cash holdings are positively affected by cash flow and dividend payout. Firm size, leverage, CapEx, NWC, and market-to-book are negatively related to cash holdings. The findings show that firms with higher cash holdings than the target level have a higher SOA rate than firms with cash holdings that are lower than the target level.

1 INTRODUCTION

According to pecking order theory, a firm will first finance their investment activities with internal financing then external financing. Myers (1984) revealed that if a firm needs funding from external parties, the firm will first choose the safest alternatives, which are loans, hybrid securities (convertible bonds), and equity. In addition, the free cash flow theory stated that finance manager tends to stack the firm's cash to increase the numbers of asset under their control so that they can achieve discretionary power to make an investment-related decision (Jensen, 1986).

Al-Najjar (2013) researched factors affecting corporate cash holding levels in developing countries between 2002–2008 and found that leverage has a negative effect on every developing country except Brazil. The dividend payout ratio has a different effect on every country whereas the dividend payout ratio is insignificant in India and China while it has a negative effect on Russia and has a positive effect on Brazil. Moreover, profitability has a positive effect on cash holdings in Russia, China, and Brazil, but is insignificant in India. Lastly, corporate size is an insignificant factor in Russia and Brazil but has a negative effect on India and a positive effect on China.

According to cash holdings data of four non-financial firms from the top 10 big capitalizations in Indonesian Stock Exchange (IDX) within 2010 - 2019, it is shown that even though the target level might not be 100% reached, the movement of cash ratio level shows that managers tend to adjust their cash holdings to their target ratio. This finding is in line with that of Dittmar and Duchin (2010) who found that firms will actively adjust their cash ratio toward their target ratio, although, the adjustment is imperfect.

This paper seeks to investigate the factors affecting the firms' cash holdings on non-financial firms listed on IDX. The independent variables used to estimate the firm's cash holdings are firm size, leverage, dividend, cash flow, NWC, capital expenditure and market-to-book.

2 LITERATURE REVIEW

Trade-off theory stated that firms weigh the costs and benefits of holding cash. The benefits of holding cash as stated by Ferreira and Vilela (2003) are minimizing the risk of financial distress, enabling companies to carry out investment, and minimizing costs to obtain external funding. Pecking order theory which was proposed by Myers (1984) stated that to minimize the costs arising from asymmetric information, the firm's financing needs to be sourced sequentially starting from internal financing to external funding. According to pecking order theory, cash acts as a buffer between RE and investment needs (Ferreira & Vilela, 2003). Additionally, according

to pecking order and trade-off theories, firms' characteristics related to firms' cash holdings are dividend payments, investment opportunity set, liquid asset substitutes, leverage, size, cash flow, and debt. Another theory related to cash holdings is the free cash flow theory which stated that managers tend to hoard cash to be used to increase the total of assets under their control and gain discretionary power over the firm's investment decisions. Based on the free cash flow theory, firms' characteristics that affect the cash holdings are investment opportunity set, leverage, and size. The SOA is the expected percentage by which the firm can close the gap between the past cash ratio and the target in one year (Dittmar & Duchin, 2010). Dittmar and Duchin (2010) found that companies will actively adjust the cash holding level against the cash holding target, but the SOA is imperfect and varies between companies. Alles et al. (2012) stated that each firm has a different SOA influenced by the characteristics of the firm. The previous study used the adjustment speed method to measure the adjustment speed for the capital structure and this method can also be applied to measure the adjustment speed for the cash ratio (Ferreira & Vilela, 2003).

3 RESEARCH METHODS

This research was conducted by involving 203 non-financial firms listed on IDX and used purposive sampling for the sampling techniques. Financial firms are excluded since they have a cash structure that is specifically regulated. The first model proposed in this paper is formulated as:

$$Cash_{i,t} = \alpha + \beta_1 Size_{i,t} + \beta_2 Leverage_{i,t} + \beta_3 dividen_{i,t} + \beta_4 CF_{i,t} + \beta_5 NWC_{i,t} + \beta_6 CapEx_{i,t} + \beta_7 MTB_{i,t} + \varepsilon_{i,t} \quad (1)$$

Model (1) shows whether a firm's cash holdings can be affected by the independent variables used in this paper. Model (2) is proposed to measure the relationship between changes in the firm's cash holdings with the cash holdings speed of adjustment that occurs in the firm. Referring to Jiang and Lie (2016), the research model to estimate the speed of adjustment is:

$$Cash_{i,t} - Cash_{i,t-1} = \beta_1 (Cash^*_{i,t} - Cash_{i,t-1}) + \beta_2 (Cash^*_{i,t} - Cash_{i,t-1}) \times HighCash + \varepsilon_{i,t} \quad (2)$$

High cash is a dummy variable where the value is 1 when the cash ratio is above the target ratio and 0 otherwise. According to Opler et al. (1999), the level of a firm's cash holdings target can be estimated using the moving average cash holdings of a firm during the last five years. Below are the details on the variables used in this paper.

Table 1. Operationalized variables

Variable type	Variable name	Variable definition
Dependent Variable	Cash ratio	Total cash at period t / Total assets period t
	Cash deviation	Cash ratio period t – cash ratio period $t-1$
Independent Variable	Size	Log natural of total assets
	Leverage	Total debt period t / Total equity period t
	Dividend	Total dividend period t / Net income period t
	CF ratio	(EBIT – Interest exp – Tax) period t / Total asset period t
	NWC ratio	(Non-cash current assets – current liabilities) period t / Total assets period t
	CapEx	(Net PPE period t – Net PPE period $t-1$) / Total assets period $t-1$
	MTB	(Total assets – BV Equity – Market value of equity) period t / Total assets period t

Since the data used in this paper are panel data, the method utilized is the selection between three types of methods, namely, Pooled Least Square (PLS), fixed effect, and random effect. Before picking one of the three regression methods, we conducted three types of tests; the Chow test, the Hausman test, and the Lagrange multiplier test. If the model used did not meet the BLUE

(Best Linear Unbiased Estimator) criteria, then a fully robust standard error will be applied. According to the test result, the best method for the first model is the Fixed Effect method, while for the second model is the PLS method. The tool utilized in this study is Stata 14.

4 RESULT

Table 2. Regression Result

	Coefficient	P > t
Size	-0.0135	0.000
Leverage	-0.0933	0.011
Div.	0.0124	0.024
CF	0.1147	0.000
NWC	-0.0825	0.003
CapEx	-0.0363	0.015
MTB	-0.0025	0.031
<i>R squared</i>	0.1404	

Table 2 presents the regression result from model (1) of this study. The size coefficient value is negatively significant to the firm's cash holdings level which supports the trade-off theory. A smaller firm is expected to hold more cash since they would probably involve higher costs in order to obtain cash. The cost incurred is associated with asymmetric information that is higher for a small firm. In addition, it is easier for bigger firms to obtain cash from the capital market. Firms with higher leverage have fewer cash holdings than firms with lower leverage. This result supports the free cash flow theory where the main cause is associated with the level of monitoring on a firm by the capital market. High leverage firms are more subject to monitoring by capital markets, hence preventing managerial discretion to hoard high cash. The dividend has a positive effect on cash holdings associated with the precautionary motives of cash holdings. The bigger the dividend amount paid to shareholders; the more likely for firms to hold more cash. This is to ensure cash availability when it comes to paying dividends because decreasing the amount of dividend paid might not be a good signal for shareholders. On the other hand, the result for cash flow variables is in line with the pecking order theory, which stated that firms prefer to use internal financing than external financing. According to the theory, increasing the cash flow level in a firm demonstrates higher activities occurring in the firm that leads to additional retained earnings owned by the firm that can be used to finance the firm's investment needs.

The coefficient of NWC is negative, indicating that there is a negative relationship between NWC and cash holdings. NWC can be seen as liquid assets that can easily be converted to cash when a firm is in need of cash. Hence, it is considered as a cash substitute. This result is in line with the previous study conducted by Jiang and Lie (2016) who also finds that NWC negatively affects cash holdings. Capital expenditure has a negative effect on a firm's cash holdings with a coefficient value of -0.0363. This result supports the pecking order theory. Capital expenditure can be treated as collateral assets for a firm to gain more debt, as a result, a high capital expenditure leads to a lower level of cash holdings (Bates et al., 2009). The market-to-book ratio is used to be the proxy of the firms' investment opportunity set (Ferreira & Vilela, 2003). The market-to-book ratio coefficient is negative and significant which is consistent with the free cash flow theory. When a firm has a high investment opportunity, they will use their cash to invest in profitable projects. On the other hand, the cash level of a firm will remain high if profitable projects are unavailable to invest in.

Table 3. Regression Result

	Coefficient	P > z
Deviation cash	0.3146	0.0000
High Cash	0.1473	0.0000
<i>R squared</i>	0.1944	

Table 3 presents the regression result of model (2). The coefficient in model (2) stands for the estimated SOA of a firm. The estimation of the SOA is 31.46% when the cash ratio is less than the target and 46.19% ($0.3146 + 0.1473$) when the cash ratio is above the target. If a firm has more cash than its target, the cash can be disbursed by repurchasing shares from the shareholders or paying off a debt that is due. These activities can be viewed as a good signal by the shareholders (Allen & Michaely, 2003). One way to get the meaning of this estimated SOA is to translate it into the concept of "half-life" (Dittmar & Duchin, 2010). Half-life is the time it takes for a firm to reach half the distance to its target cash after a one-unit shock to the error term and can be calculated using $\log(0.5)/\log(1-\text{SOA})$ (Dittmar & Duchin, 2010). Based on the regression result in model (2), it is known that if the firm's cash ratio is above the target level, a firm will need 1.1 years to adjust and 1.8 years when the cash ratio is below its target level.

5 CONCLUSION

This study found that firm size, leverage, NWC, CapEx, and the market-to-book ratio have a negative effect on a firm's cash holdings while cash flow and dividend payout positively affect the firm's cash holdings. The speed at which firms adjust their cash ratio toward the target levels is also the focus of this study. We find that firms will have a higher SOA when the cash ratio is above the target level. Therefore, the time required by the firm to adjust their cash holdings to one-half of their target level will be shorter.

The results of this study benefit for firm's manager to pay attention to these factors in the context of making strategic decisions for firm management. The research was conducted with the hope that the results can be a guide for companies to anticipate negative impacts related to cash holdings management so that companies will be more aware of managing company cash. For further research, it is recommended to include external factors such as GDP and other internal factors, specifically corporate governance, the board size, and R&D expenditure.

REFERENCES

- Al-Najjar, B. (2013). The financial determinants of corporate cash holdings: Evidence from some emerging markets. *International business review*, 22(1), 77-88.
<https://doi.org/10.1016/j.ibusrev.2012.02.004>
- Allen, F., & Michaely, R. (2003). Payout policy. *Handbook of the Economics of Finance*, 1, 337-429.
- Alles, L., Lian, Y., & Xu, C. (2012, 01/09). The Determinants of Target Cash Holdings and Adjustment Speeds: An Empirical Analysis of Chinese Firms. *SSRN Electronic Journal*.
<https://doi.org/10.2139/ssrn.1981818>
- Bates, T. W., Kahle, K. M., & Stulz, R. M. (2009). Why do US firms hold so much more cash than they used to? *The journal of finance*, 64(5), 1985-2021.
- Dittmar, A., & Duchin, R. (2010, 05/01). The Dynamics of Cash. *SSRN Electronic Journal*.
<https://doi.org/10.2139/ssrn.1569529>
- Ferreira, M., & Vilela, A. (2003, 08/01). Why Do Firms Hold Cash? Evidence from EMU Countries. *European financial management*, 10, 295-319. <https://doi.org/10.2139/ssrn.614002>
- Jensen, M. C. (1986). Agency Costs of Free Cash Flow, Corporate Finance, and Takeovers. *The American Economic Review*, 76(2), 323-329. <http://remote-lib.ui.ac.id:2063/stable/1818789>
- Jiang, Z., & Lie, E. (2016). Cash holding adjustments and managerial entrenchment. *Journal of corporate finance (Amsterdam, Netherlands)*, 36, 190-205. <https://doi.org/10.1016/j.jcorpfin.2015.12.008>
- Myers, S. C. (1984). The Capital Structure Puzzle. *The Journal of finance (New York)*, 39(3), 574-592.
<https://doi.org/10.1111/j.1540-6261.1984.tb03646.x>
- Opler, T., Pinkowitz, L., Stulz, R., & Williamson, R. (1999). The determinants and implications of corporate cash holdings. *Journal of financial economics*, 52(1), 3-46. [https://doi.org/10.1016/S0304-405X\(99\)00003-3](https://doi.org/10.1016/S0304-405X(99)00003-3) (Journal of Financial Economics)

The Effect of Market Power and Diversification on Banking Stability in Indonesia

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ABSTRACT: This article aims to see the impact of market power and diversification on bank stability on 37 commercial banks in Indonesia from 2016 to 2020. The method used is the Generalized Least Squares (GLS) Panel regression. Bank stability is measured by proxy Z, diversification is measured using the Herfindahl-Hirschman Index (HHI), and market power is measured using the Lerner Index. The results show that market power and loan diversification had a significant positive effect on bank stability. This result is in line with the “competition-fragility” view that the level of competition will affect the stability of the banking system. Loan diversification has a positive effect on bank stability, which can reduce fragility risk more efficiently. Meanwhile, income diversification has a significant negative effect which means that an increase in income diversification will reduce bank stability.

1 INTRODUCTION

Banks are institutions that have an intermediary function, meaning all activities and decisions made in the banking sector greatly affect the wheels of the economy in a country. The role of the banking sector is important because based on the quarterly report of the Bank for International Settlements (BIS), banks are still the main source for lending in Asia, especially several developing countries, where banks channel 75% of total loans to the non-financial sector. Since the role of the banking sector is essential, the government is very concerned with maintaining the stability of the banking sector, so as not to affect the economic stability in its country.

The stability of the banking sector is influenced by several factors, one of which is the financial crisis that hit a country. The financial crisis that occurred in 2008 became one of the triggers for the reform of banking regulations in several countries. The financial crisis had a major impact on the decline in tax revenues and a significant increase in government spending. One of the causes of bank instability during the global financial crisis is the result of excessive risk-taking by banks (Soedarmono et al., 2011). Until now, many countries around the world continue to strive to improve the performance of the banking sector so that it remains stable. Several bank strategies to reduce high credit risk are increasing the amount of capital, credit securitization, credit derivatives, smaller credit portfolios, increasing bank product diversification, and other risk mitigation techniques (Wibowo, 2016).

Based on the theory and several previous studies that have been put forward, research focusing on the effect of income diversification and the level of competition on banking stability still delivers different views. This article aims to see the impact of market power and diversification on bank stability in Indonesia from 2016 to 2020. The method used in this study was Generalized Least Square (GLS) to analyze the panel data regression and random effect model. GLS is more efficient to use than the Two-Stage least squares (2SLS) because it takes into account the problem of heteroscedasticity in banking data.

2 LITERATURE REVIEW

Banking is one of the most crucial foundations of a country's economic development. One of the banking's responsibilities is to preserve national resilience to promote people's financial well-being. The banking industry has several effects on other industries, such as reduced credit availability, a disturbed payment system, and frozen bank customer deposits. Excessive risk-taking by banks is one of the reasons for bank instability during the global financial crisis

(Soedarmono et al., 2011). Increased capital, credit securitization, credit derivatives, reduced loan portfolios, and increased bank products, among other risk mitigation measures, are all part of the bank's risk mitigation strategy (Wibowo, 2016). Diversification is one of the risk management methods employed to reduce the emergence of asymmetric information by banks (Diamond, 1984). Diversification has various advantages for credit provider institutions, including decreased supervisory costs, increased efficiency, and improved managerial capabilities (Boyd & Prescott, 1986; Iskandar-Datta & McLaughlin, 2007). It was further explained that banking is able to encourage profitability because it can minimize concentration and, finally, reduce the possibility of financial difficulties.

Previous research measures the competition level between banks and competition with banks to find two different views: competition-stability and competition-fragility. The competition-fragility view is a conventional view, which states that increasingly fierce competition between banks will contribute to reducing the power of banks to generate profits and encourage banks to take more risks in an effort to gain maximum profits (Carletti & Hartmann, 2002; Wibowo, 2016). This view argues that when competition is getting tighter, while the margins of bank profits are minimal, banks tend to take excessive risks to increase profitability. As for this, the quality of the credit provided by the bank will decrease and increase the bank fragility. Meanwhile, the competition-stability view explains there is a relationship between each competition where tight competition can increase due to the bank (Wibowo, 2016). Boyd and De Nicoló (2005) stated that the greater the market power of a bank in the credit market, the greater the risk. This is because credit interest rates are increasingly making it more difficult for credit to pay off loans. According to the competition-stability theory, banking security will actually worsen competition between banks, which is minimal. Based on the explanation above, this study will examine the effect of diversification and the competition level on banking stability in Indonesia.

3 METHODOLOGY

Diversification is one of the strategies used by banks in managing risk and reducing the occurrence of asymmetric information (Diamond, 1984). Diversification provides lending institutions with several benefits, such as lower supervisory costs, higher efficiency, and more effective managerial skills (Boyd & Prescott, 1986; Iskandar-Datta & McLaughlin, 2007). However, several studies show that the diversification contribution actually has a significant effect on bank failure. According to Torna and DeYoung (2013), diversification of bank income sources contributed greatly to bank failure in the United States economic crisis in 2008. Furthermore, Torna and DeYoung (2013) state that the impact of income diversification differs between banks depending on financial conditions such as the number of capital buffers and bank business model. Market power is able to be used to measure company competition in the industry. In practice, banks provide various products concentrated in the general market only. In addition, Bikker and Haaf (2002) state that banks define the relevant market by making initial decisions regarding relevant structural characteristics such as competition and concentration (Meutia & Chalid, 2021).

There are two estimation models based on the literature used as a research reference to test the effect of market power and diversification on bank stability. The influence of market power and diversification on bank stability is analyzed using the same research model as conducted by Shim (2019), Amidu and Wolfe (2013), Soedarmono et al. (2011), and Mensi and Labidi (2015). The following equation is used in the study:

$$Stab_{i,t} = \alpha_0 + \alpha_1 Lerner_{i,t} + \alpha_2 LoanDiv_{i,t} + \alpha_3 RevDiv_{i,t} + \alpha_4 bankspecific_{i,t} + \alpha_5 X_{i,t} + \alpha_6 COVID_{i,t} + \alpha_7 Stab_{i,t-1} + \varepsilon_{i,t}$$

Based on the equation above, Lerner measures market power, LoanDiv measures the level of loan diversification, RevDiv denotes the level of revenue diversification, and bank-specific denotes bank financial ratios such as size, LDR, NPL, and CAR. Moreover, X denotes macroeconomic factors used, such as the growth of GDP, BI Rate, and dummy variable COVID to measure the effect of COVID on bank stability. Dummy variable used to predict the value of the dependent variable on the basis of one or more independent variables, where one or more independent variables used are dummy. This research uses the panel data regression and random effect model analyzed by the GLS method. Mensi and Labidi (2015) state that the GLS is more

efficient compared to the Two-Stage least squares method (2SLS) because GLS random effect can overcome heteroscedasticity problem in banking data.

4 RESULTS

Variable	Dependent Variable = Ln Z-score			
	(1)	(2)	(3)	(4)
LERNER	0.829233 (0.0194)* *			0.9082 (0.0147)* *
REVDIV		-1.3678 (0.1408)**		-1.3307 (0.0385)* *
LOANDIV			0.4851 (0.3599)	0.8628 (0.1339)
CAR	1.736 (0.0422)* *	2.5765 (0.0097)***	2.1714 (0.0238)* *	2.2629 (0.0301)* *
NPLGROSS	-11.1464 (0.0314)* *	-14.2086 (0.0052)***	-15.0315 (0.0032)* **	-11.4914 (0.0347) *
LDR	-0.26 (0.5200)	-0.3395 (0.5200)	-0.0178 (0.6696)	-0.3097 (0.4742)
SIZE	0.035875 (0.5381)	0.109446 (0.1182)	0.035 (0.5723)	0.0852 (0.2414)
GPDB	1.951272 (0.4993)	1.9851 (0.4989)	1.7011 (0.5624)	-259.3435 (0.1534)
BI RATE	7.282841 (0.5384)	9.259 (0.4410)	9.1938 (0.4427)	19.0393 (0.1945)
Stab(-1)	0.474115 (0.0000)* **	0.4861 (0.0000)***	0.5022 (0.0000)* **	0.4258 (0.0000)* **
COVID				-19.6859 (0.1508)
Observation	148	148	148	148
Adjusted R-squared	0.4013	0.3885	0.3831	0.4170
Prob (F-statistic)	0.0000	0.0000	0.0000	0.0000

The results show that market power as measured by the Lerner index had a positive and significant effect. This indicates that the higher the Lerner index value, the lower the level of competition so that banking stability will be better. Markets with a greater level of market power have a higher level of stability, so when a bank has power, the value of the bank will increase (Berger et al., 2009). The study results are in line with the competition-fragility view, which stated that the level of competition will affect the banking system's stability. Loan diversification had a positive but insignificant effect on bank stability. This indicates that banks that diversify their loan portfolios can reduce their risk of fragility more efficiently than banks that focus their lending on specific areas. Loan diversification had a positive effect on bank performance, so loan diversification activities carried out by banks can reduce the risk of bad loans. Revenue diversification had a significant and negative effect on bank stability.

Furthermore, the outcomes also indicate the direction of the negative effect, which means that an increase in income diversification will reduce bank stability. Revenue diversification carried out by banks by increasing the level of non-interest income causes an increase in credit risk faced by the bank. Thus, income diversification does not provide an optimal combination of return and risk (Demirguc-Kunt & Huizinga, 2010). Furthermore, by calculating the effect of COVID-19, the results of this study show that COVID-19 has a negative but insignificant impact on bank stability. This suggests that although the COVID-19 pandemic caused recessionary economic growth and bank financial performance to decline, COVID-19 did not affect the banking stability in Indonesia.

5 CONCLUSIONS

Based on the research on 37 conventional commercial banks in Indonesia from 2016 to 2020, the results lead to several conclusions, i.e., firstly, market power as measured by the Lerner index has a significant positive effect on bank stability. This result is in line with the view of competition-fragility in which the increasing level of competition contributes to the decline in banking stability so that banking stability becomes unstable. Secondly, loan diversification shows that loan diversification has a positive but insignificant effect on bank stability. This indicates that banks that diversify their loan portfolios can reduce their risk of fragility more efficiently than banks that focus on lending. Thirdly, for revenue diversification, the results show that it has a significant effect on bank stability with a negative relationship. These results indicate that increasing diversification of income sources affects bank instability. This condition reveals that increasing revenue diversification will reduce bank stability. Lastly, the COVID-19 pandemic represented by the dummy variable showed insignificant negative results. The results showed that although the COVID-19 pandemic affected economic growth and banking financial performance, it did not affect the fragility of banking stability.

REFERENCES

- Amidu, M., & Wolfe, S. (2013). Does bank competition and diversification lead to greater stability? Evidence from emerging markets. *Review of Development Finance*, 3(3), 152–166. <https://doi.org/10.1016/j.rdf.2013.08.002>
- Berger, A. N., Klapper, L. F., & Turk-Ariss, R. (2009). Bank competition and financial stability. *Journal of Financial Services Research*, 35(2), 99–118. <https://doi.org/10.1007/s10693-008-0050-7>
- Bikker, J. A., & Haaf, K. (2002). Competition, concentration and their relationship: An empirical analysis of the banking industry. *Journal of Banking & Finance*, 26(11), 2191–2214. [https://doi.org/10.1016/S0378-4266\(02\)00205-4](https://doi.org/10.1016/S0378-4266(02)00205-4)
- Boyd, J. H., & De Nicoló, G. (2005). The theory of bank risk taking and competition revisited. *The Journal of Finance*, 60(3), 1329–1343. <https://doi.org/10.1111/j.1540-6261.2005.00763.x>
- Boyd, J. H., & Prescott, E. C. (1986). Financial intermediary-coalitions. *Journal of Economic Theory*, 38(2), 211–232. [https://doi.org/10.1016/0022-0531\(86\)90115-8](https://doi.org/10.1016/0022-0531(86)90115-8)
- Carletti, E., & Hartmann, P. (2002). Competition and stability: What's special about banking? *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.357880>
- Demirguc-Kunt, A., & Huizinga, H. (2010). Bank activity and funding strategies: The impact on risk and returns. *Journal of Financial Economics*, 98(3), 626–650. <https://doi.org/10.1016/j.jfineco.2010.06.004>
- Diamond, D. W. (1984). Financial intermediation and delegated monitoring. *Review of Economic Studies*, 51(3), 393–414. <https://doi.org/10.2307/2297430>
- Iskandar-Datta, M., & McLaughlin, R. (2007). Global diversification: Evidence from corporate operating performance. *Corporate Ownership and Control*, 4(4 B), 228–242. <https://doi.org/10.22495/cocv4i4c1p7>
- Mensi, S., & Labidi, W. (2015). The effect of diversification of banking products on the relationship between market power and financial stability. *American Journal of Economics and Business Administration*, 7(4), 185–193. <https://doi.org/10.3844/ajebasp.2015.185.193>
- Meutia, N. S., & Chalid, D. A. (2021). Loan Diversification, Market Concentration, and Stability in the Indonesian Banking Industry. *Proceedings of the Asia-Pacific Research in Social Sciences and Humanities Universitas Indonesia Conference (APRISH 2019)*, 558. <https://doi.org/10.2991/assehr.k.210531.063>
- Rossi, S. P., Schwaiger, M. S., & Winkler, G. (2009). How loan portfolio diversification affects risk, efficiency and capitalization: A managerial behavior model for Austrian banks. *Journal of Banking & Finance*, 2218–2226.
- Shim, J. (2019). Loan portfolio diversification, market structure and bank stability. *Journal of Banking and Finance*, 104(1), 103–115. <https://doi.org/10.1016/j.jbankfin.2019.04.006>
- Soedarmono, W., Machrouh, F., & Tarazi, A. (2011). Bank market power, economic growth and financial stability: Evidence from Asian banks. *Journal of Asian Economics*, 22(6), 460–470. <https://doi.org/10.1016/j.asieco.2011.08.003>
- Torna, G., & DeYoung, R. (2013). Nontraditional banking activities and bank failures during the financial crisis. *Journal of Financial Intermediation*, 22(3). <https://doi.org/10.2139/ssrn.2032246>
- Wibowo, B. (2016). Stabilitas bank, tingkat persaingan antar bank dan diversifikasi sumber pendapatan: Analisis per kelompok bank di Indonesia. *Jurnal Manajemen Teknologi*, 15(2), 172–195. <https://doi.org/10.12695/jmt.2016.15.2.5>

The Effect of Islamic Work Ethics on Organisational Changes in Indonesian Islamic Banking

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ABSTRACT: There has been many focus on the Islamic Work Ethics (IWE) concerning organisational changes in the Islamic banking sector, specifically at the Syariah Bank in Indonesia. Therefore, this study aims to determine the effect of IWE on organisational changes, as well as to ascertain the responses of employees towards changes in the company, specifically at the Syariah Bank. This also focused on IWE, commitment to change, and organisational citizenship behavior (OCB) using a quantitative study design with survey data collection methods. The participants of the survey included 260 employees from the Syariah Bank. The results showed that the commitment to change mediates the relationship between IWE and OCB.

1 INTRODUCTION

Work ethics is one of the most important factors required by modern organisations to adapt to their dynamic and changing environment. The Islamic Work Ethics (IWE) promotes the adaptation to organisational changes by upholding business objectives and promoting the welfare and performance of the organisation (Kalemci & Tuzun, 2019). Meanwhile, it is insufficient in providing the needed assistance to these changing organizations (Ali 1996).

The support for organisational change is associated with the positive influence of IWE on employee responses to change (Al-Shamali *et al.*, 2021). However, additional studies are required to establish generalised conclusions due to the discrepancy between the theoretical assumptions and empirical investigations associated with the effect of IWE on employee responses to change (Al-Shamali *et al.*, 2021; Roberts, & Zafar, 2015; Yousef, 2000).

This study aims to determine the importance of IWE, commitment to change, and organisational citizenship behavior (OCB) on the response of employees towards the merger of several banks, including the BRI Syariah, Mandiri Syariah, and BNI Syariah, into the BSI bank. Therefore, it is expected that the various employees merged into one must adapt to the changes in the BSI bank. Also, it is important to investigate the effect of IWE on employee commitment to changes associated with the merger of the three different banks.

2 LITERATURE REVIEW

2.1 *Islamic Work Ethic (IWE)*

IWE is defined as a framework of doctrines that distinguish between acceptable and unacceptable work practises (Beekun, 1997). It is similar to religious frameworks such as PWE since it is a framework that shapes the attitudes and behaviours of believers towards work by emphasising the importance of effort, cooperation, and the abstinence of immoral wealth-gathering methods (Khan *et al.*, 2015). Previous studies compared IWE to PWE by examining the relationship between IWE and work-related outcomes, such as employee commitment, productivity, and performance. (Hayati & Carniogo, 2012).

2.2 *Commitment to Change*

Various studies on commitment to change support Allen and Meyer (1990) on organisational commitment, which was distinguished into three types, including affective, normative, and continuance. Affective commitment is based on the emotional attachment of the employees to the organisation, while normative commitment is motivated by the desire of the employees to

remain in the organisation as a matter of obligation. Lastly, continuance commitment is based on the perception of the employees towards losing something if they do not stay in the organisation.

2.3 Organisational Citizenship Behavior (OCB)

According to Dennis Organ (1988), OCB is defined as employee behaviour beyond role requirements, which may not be directly or explicitly recognised by the formal reward system but facilitates organisational functioning. Employees who exceed their formal job descriptions can provide added value and make a positive contribution to organisational effectiveness.

2.4 Hypothesis

This study aims to examine the importance of IWE on OCB mediated by commitment to change. Therefore, the relationships between these variables will be evaluated (Figure 1).

IWE has a positive influence on OCB (Ali, 2015; Murtaza *et al.*, 2016; Yousef, 2000). According to this description, the hypothesis can be formulated as follows:

H1: There is a positive effect of IWE on OCB

IWE can increase the affective, normative, and continuance commitment of employees to change (Ali, 2015; Al-Shamali *et al.*, 2021; Bouckennooghe *et al.*, 2015; Choi, 2011; Javed *et al.*, 2017). Affective, normative, and continuance commitment has also been previously investigated, based on OCB (Clercq, Rahman & Haq, 2019; Murtaza *et al.*, 2016; Tufail *et al.*, 2017). IWE has a significant influence on OCB (Ali, 2015; Murtaza *et al.*, 2016; Yousef, 2000). According to this description, the hypothesis can be formulated as follows:

H2: The IWE has a positive effect on OCB, which is mediated by affective commitment to change

H3: The IWE has a positive effect on OCB, which is mediated by normative commitment to change

H4: The IWE has a positive effect on OCB, which is mediated by continuance commitment to change

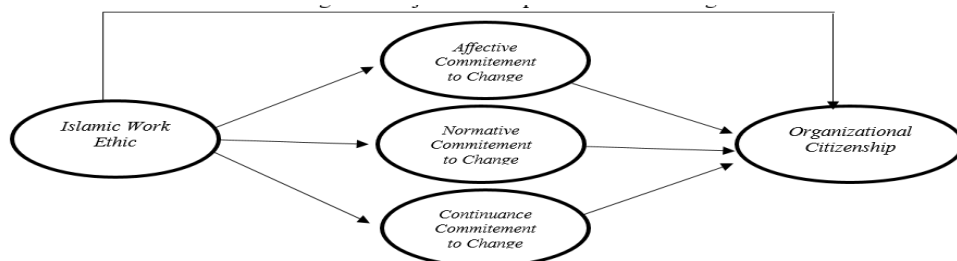


Figure.1

3 STUDY METHODS, DATA ANALYSIS, AND MEASUREMENT

The study surveyed 260 respondents who were recently employed at the PT. Bank Syariah in Indonesia Tbk. (BSI) and had a minimum of two years of experience at either BRI Syariah, Mandiri Syariah, or BNI Syariah. Also, the study was conducted in DKI Jakarta and investigated the relationship between the IWE, Commitment to Change, and OCB, each of which can be explained as follows.

IWE was assessed using a 22-item scale developed by Khadijah *et al.* (2015), while the commitment to change was assessed using an 18-item scale developed by Herscovitch and Meyer (2002), followed by a Likert scale ranging from 1 (Strongly Disagree) to 7 (Strongly Agree). Subsequently, Lee and Allen (2002) conducted a study on OCB, which included 8 items and a frequency scale ranging from 1 (Never) to 7 (Always). The data were analysed using the AMOS software, which included a Structural Equation Model (SEM).

4 RESULTS

SEM analysis was used to investigate the causal relationships between the variables involved in this study (Garson, 2016). The results showed a significant and positive relationship between IWE and OCB at a t-value and p-value of 5.30 and 0.02, respectively. Subsequently, it was revealed that IWE can influence OCB, both directly and indirectly through the mediation of affective commitment to change at a z-value and p-value of 2.39 and 0.01, respectively. There was also a significant relationship between IWE and OCB based on the mediation of normative commitment to change at a z-value and p-value of 3.25 and 0.01, respectively. Lastly, the Sobel test results showed that IWE can influence OCB, both directly and indirectly through the mediation of continuance commitment to change at a z-value and p-value of 3.49 and 0.04, respectively.

Table 1. Hypothesis results

Hypothesis		t-value	p-value	Results
H1	There is a positive influence of Islamic work ethics on organizational citizenship	5.30	0.02	Significant
Hypothesis		z-value	p-value	Results
H2	The influence of Islamic work ethics on organizational citizenship is mediated by affective commitment to change	2,39	0.01	Significant
H3	The influence of Islamic work ethics on organizational citizenship is mediated by normative commitment to change	3,25	0.01	Significant
H4	The effect of Islamic work ethics on organizational citizenship is mediated by continuance commitment to change	3,49	0.04	Significant

5 DISCUSSION AND CONCLUSIONS

The Islamic work ethics include a set of positive characteristics exhibited by Muslim employees in an organisation (Ali, 2015). Furthermore, It is consistent with the BSI Islamic banking industry, where all BSI bank employees are Muslims with a good Islamic work ethics character. The commitment to change by employees is influenced by the Islamic work ethic (Al-Shamali *et al.*, 2021; Meyer & Herscovitch, 2001).

Previous studies have shown that the nature of Islamic work ethics has a positive effect on the voluntary attitudes or OCB of employees (Ali, 2015; Murtaza *et al.*, 2016; Yousef, 2000). Similarly, there is a positive relationship between employee commitment and OCB (Clercq, Rahman & Haq, 2019; Murtaza *et al.*, 2016; Tufail *et al.*, 2017), which explains the reinforcement of the positive nature of OCB by the Islamic work ethics (Murtaza *et al.*, 2016). OCB is a positive character that benefits both the employees and the company. Additionally, this attitude is important to foster the unity of employees from different Islamic work environments, such as the case of the BSI bank merger.

Therefore, it is possible to conclude that Islamic work ethics can increase the commitment of employees towards organisational changes and provide positive OCB traits to the company, as seen in the BSI bank employees. Employees were still committed despite the changes involved with the merger of three state-owned banks to the BSI bank. According to the results, it can also be implied that employees with a strong IWE character were still willing to adapt to the changes and embrace the positive nature of OCB. Also, the employees who were committed to change wanted the company to perform better due to their level of OCB for the organisation.

REFERENCES

- Ali, A. J. (1996). Organization development in the Arab world. *Journal of Management Development*, 15(5), 4–21.
- Allen, N. J., & Meyer, J. P. (1990). The measurement and antecedents of affective, continuance and normative commitment to the organization. *Journal of occupational psychology*, 63(1), 1-18.

- Al-Shamali, A., Irani, Z., Haffar, M., Al-Shamali, S., & Al-Shamali, F. (2021). The influence of Islamic Work Ethic on employees' responses to change in Kuwaiti Islamic banks. *International Business Review*, 101817.
- Beekun, R. I. (1997). *Islamic business ethics* (No. 2). International Institute of Islamic Thought (IIIT).
- Bouckenoghe, D., Schwarz, G. M., & Minbashian, A. (2015). Herscovitch and Meyer's three-component model of commitment to change: Meta-analytic findings. *European Journal of Work and Organizational Psychology*, 24(4), 578–595.
- Choi, M. (2011). Employees' attitudes toward organizational change: A literature review. *Human Resource Management*, 50(4), 479–500.
- Clercq, D. D., Rahman, Z., & Haq, I. U. (2019). Explaining helping behavior in the workplace: The interactive effect of family-to-work conflict and islamic work ethic. *Journal of Business Ethics*, 155(4), 1167–1177.
- Garson, G. D. 2016. *Partial Least Squares: Regression and Structural Equation Models*. Statistical Associates Publishers.
- Hayati, K., & Carniago, I. (2012). Islamic work ethic: The role of intrinsic motivation, job satisfaction, organizational commitment and job performance. *Procedia - Social and Behavioral Sciences*, 65, 1102–1106.
- Herscovitch, L., & Meyer, J. P. (2002). Commitment to organizational change: Extension of a three-component model. *The Journal of Applied Psychology*, 87(3), 474–487.
- Javed, B., Bashir, S., Rawwas, M. Y. A., & Arjoon, S. (2017). Islamic work ethic, innovative work behaviour, and adaptive performance: The mediating mechanism and an interacting effect. *Current Issues in Tourism*, 20(6), 647–663.
- Kalemci, R. Arzu., Ipek Kalemci T. (2019). Understanding Protestant and Islamic Work Ethic Studies: A Content Analysis of Articles. *Journal Of Business Ethics*, 158(5).
- Khan, K., Abbas, M., Gul, A., & Raja, U. (2015). Organizational justice and job outcomes: Moderating role of Islamic work ethic. *Journal of Business Ethics*, 126(2), 235–246.
- Khadijah, A. S., Kamaluddin, N., & Salin, A. S. A. P. (2015). Islamic work ethics (IWE) practice among employees of banking sectors. *Middle-East Journal of Scientific Research*, 23(5), 924–931.
- Lee, K., & Allen, N. J. (2002). Organizational citizenship behavior and workplace deviance: The role of affect and cognitions. *Journal of Applied Psychology*, 87(1), 131–142.
- Meyer, J. P., & Herscovitch, L. (2001). Commitment in the workplace: Toward a general model. *Human Resource Management Review*, 11(3), 299–326.
- Murtaza, G., Abbas, M., Raja, U., Roques, O., Khalid, A., & Mushtaq, R. (2016). Impact of Islamic work ethics on organizational citizenship behaviors and knowledge-sharing behaviors. *Journal of Business Ethics*, 133(2), 325–333.
- Organ, D. W. (1988). *Organizational citizenship behavior: The good soldier syndrome*. Lexington Books/DC Heath and Com.
- Tufail, U., Ahmad, M. S., Ramayah, T., Jan, F. A., & Shah, I. A. (2017). Impact of Islamic work ethics on organisational citizenship behaviours among female academic staff: The mediating role of employee engagement. *Applied Research in Quality of Life*, 12 (3), 693–717.
- Usman, M., Shahzad, K., Roberts, K. W., & Zafar, M. A. (2015a). The effect of job insecurity on attitude towards change and organizational citizenship behavior: Moderating role of Islamic work ethics. *Journal of Islamic Business and Management*, 5 (1), 1–22.
- Yousef, D. A. (2001). Organizational commitment as a mediator of the relationship between Islamic work ethic and attitudes toward organizational change. *Human Relations*, 53(4), 513–536.

The Effect of School Image and Service Quality to the Loyalty with Satisfaction as mediating variable in Top and Bottom Social Class of Students and Parents in Private Secondary School in Semarang

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ABSTRACT: The loyalty of both students and parents at schools is important to promote and market the schools. Schools have to make sure they have a good image, good service quality and also able to satisfy their customers. Different social class have different perspective of satisfaction. The research aim is to identify the effect of school image and service quality to the loyalty with satisfaction as mediating variable from different social class customers. The objects of research are two different private schools in Semarang that have different market segment. The method that used is mixed method which started with the online questionnaire distribution to the students, followed by interviewed with parents. The data analysis using multiple linear regression. The result of two different social class secondary school is quite different from the parents' perspective, while from the students' perspective state that the both school image and service quality are effecting to build the loyalty with the significant value ≤ 0.05 . Both of the social classes are agree that their loyalty will effected by the service quality through the satisfaction. The level of satisfaction of the parents from different social class also show different result.

1 INTRODUCTION

The number of school in Semarang increase in the last 4 years. Especially for private school, the number was increase until 112 schools, while for public school 2 schools only (BPS, 2020). The increasing of the number of school affect the strategy of the school to get more students so able to survive competing with other private school. The private schools also have different market segmentation which are from top and bottom social class.

School must has a good image and good service quality so it can build the loyalty of the customers. Good service quality build the customers satisfaction that will implement the loyalty (Ramadania, 2020) so the service quality really effecting the students and parents' satisfaction to the school.

The effect of social class to the loyalty not conclusive yet because there are different findings. Based on Khoirunnisa (2013) social class relate with the loyalty but not significant, while the finding of Wiratama (2016) social class has direct positive effect to the loyalty. The aim of this research is to identify the effect of school image and service quality to the loyalty with satisfaction as mediating variable from different social class customers with students and parents as customers.

2 LITERATURE REVIEW

2.1 School image

The image of a brand formed by a good image that build by their corporate (Wong 2017). Hassan (2019) and Wong (2017) in different research state that school image has direct significantly effect to the students' loyalty. This statement is different with the finding by Ainna (2016) that school image has direct significant effect to the students' satisfaction but indirect to the loyalty.

2.2 Service quality

Service quality is the effort from service provider to be able to meet the customer's expectation as well as accuracy in conveying and balancing customer expectations (Pratama, 2017). To

provide good service quality, school has to pay more attention to the quality of their service to the customer. A good service quality able to increase the students' loyalty through their satisfaction (Ainna, 2016; Kuswanto 2018) but giving indirect effect to the loyalty, where satisfaction becomes the intervening variable between service quality and loyalty (Khusaeni, 2016; Pramono 2017; Satria, 2019).

2.3 Satisfaction

The objective of business is to satisfy their customers through their product or service (Tjiptono, 2012). When we are talking about the satisfaction of customers at school it means the students and also their parents. To get loyal students, school needs to maintain and increase the level of customers' satisfaction. Satisfaction has a strong effect to the loyalty, when customer satisfied it also increasing the loyalty (Austin, 2017). Customers' satisfaction and service quality are related and effecting one another (de Oliveira Santini et al., 2017)

2.4 Loyalty

Customers' loyalty is the willingness of customer to repurchase the product or service even though there are other provider who offer the same things (Tjiptono, 2012). The loyalty to school involves the internal and external customer. Where internal customers are staff, teachers and all employees who work at school while students are the primary customer and parents are the secondary customer (Sallis, 2010). Students' loyalty can be applied in the form of behavior and the desire to be loyal while being a student and after becoming an alumni (Sneijder, 2020).

2.5 Social class

Social class is a description that determines a person's position through economic conditions, education, incomes and so on (Eka, 2011). Soekanto (2004) states that social economics class can be reviewed through employment, income and ownership. In Wiratama's research (2016) that has been carried out reveals that social values are not proven to have an effect on customer satisfaction but have a significant positive effect on loyalty.

3 RESEARCH METHOD

This research focused on school image, service quality, satisfaction and loyalty from different private in Semarang that has different market segmentation by the social class. The research applied mixed methods. The quantitative data taken from the students' perspective through questionnaire and followed by the interview with the parents as qualitative data.

The questionnaire given to the all students in two different secondary school based of their social class. The accidental sampling used until the researcher get minimum 126 feedback with 52 responses from top social class and 74 responses from bottom social class secondary school. All measured using LIKERT-scale. The data was analyzed using descriptive analysis and multiple linear regression with significance level of ≤ 0.05 . The tool that is used to analyze is IBM SPSS Statistics 25.

The interview was done with three parents each school for representing the top and bottom social class parent. The sampling that used is purposive sampling. The data was reduce to get the insight that related to the aims of the research and analyzed using the narrative data analysis.

The model that proposed for the relation among variables is like this following figure 1.

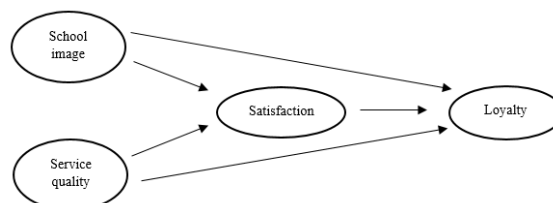


Figure 1. Research model

4 RESULT AND DISCUSSION

4.1 Descriptive

The feedback of questionnaires taken from 59 female students (46.83%) and 67 male students (53.17%) from two different private secondary school. It was found that the biggest percentage in top social class secondary school for each variable which are school image, service quality, students' satisfaction and loyalty in top social class secondary school are 44.66%, 46.47%, 43.43% and 48.02% in level of agree with all those variables. Meanwhile for the biggest percentage responses from students in bottom social class secondary school are 51.47%, 50.41%, 49.81% and 48.62% in level of strongly agree to all variables. It can be concluded that the students from bottom social class can be easily agree and satisfied with all the indicators given while for the students from top social class secondary school have more complexity to achieve their satisfaction.

4.2 Multiple linear regression

This following table list show the result of multiple linear regression of the variables that observed.

Model	Unstandardized Coefficients		Standardized Coefficients		Sig.
	B	Std. Error	Beta	t	
(Constant)	0.655	0.778		0.841	0.402
School image	0.276	0.084	0.272	3.304	0.001
Service Quality	0.113	0.040	0.195	2.827	0.005
Satisfaction	0.485	0.082	0.497	5.906	0.000

Dependent variable: Loyalty

We can see that both school image and service quality are effecting the loyalty and also satisfaction of students effecting to the students' loyalty.

4.3 Direct and indirect effect of school image and service quality to the loyalty

The result of direct and indirect effect using path analysis shown if this following figure 2.

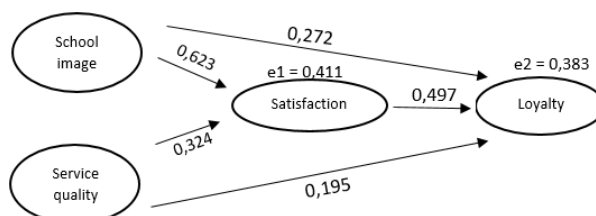


Figure 2. The direct and indirect effect of the variables to the loyalty

Satisfaction is able to become mediating variable for service quality to loyalty with the percentage of indirect effect is bigger than the direct effect. While for the school image, it effecting satisfaction of students more than the effect to the loyalty.

4.4 The parents' perspective of school image and service quality to the loyalty with satisfaction as mediating variable.

The parents both from top and bottom social class secondary school were interviewed until the response was saturated and found the same insight from them. All of them agree that school service quality really effecting their satisfaction and can build their loyalty to the school. They also agree that school image will not effecting to the satisfaction. The interesting fact found that the top social class parents have more complexity to achieve their satisfaction. They want their child take more part to build the school. While for parents from bottom social class they are easier to get satisfied as long as the teacher pay more attentions to their child and make their child

becomes smarter and discipline. The parents' loyalty also different because when the school from top social class secondary school able to satisfy the parents, they will get more support and the loyalty from the parents. The form of loyalty from the parents from top social class not only by recommend the school but also will stand for the school whatever the school facing and also not to hesitant to give material support to the school.

4.5 Discussion

The idea of this research to see the effect of school image and service quality to the loyalty with satisfaction as mediating variable in different private school with different market segmentation which is top social class and bottom social class. From the result we can see the satisfaction of both students and parents from top social class is more complex than the bottom social class. It effecting the form of the loyalty. The more complex the satisfaction is the more loyal the customers. This is becomes a challenge for private school who choose top social class customers as their market segment.

5 CONCLUSION AND IMPLICATION

In conclusion from students' perspective school image has a direct small effect to the loyalty and service quality has indirect effect to the loyalty through the satisfaction as the mediating variable with the percentage 49.7%. The level of satisfaction of the students and parents from top social class secondary school is more complex than the bottom social class secondary school. This supported by the findings by Kaiser (2020) that people from top social class will have more complexity to get reach their satisfaction. The action that shows parents' loyalty also different. The parents from bottom social class will just recommend the school to their society, while the parents from top social class will really support the school and willing to build the school together even through financial matter.

The implication of this research is for private school that has top social class as the market segment need to increase the customers' satisfaction with more complexity and starting to involve the students more to build the school image by sending them to some global competitions and other global event. While for private school with bottom social class as their market segment have to keep their good quality and strong school image also have better communication with all the parents.

REFERENCES

- Ainna, Nurul, Suwito Eko Pramono, Subagyo. 2016. Pengaruh Kualitas Layanan, Citra Sekolah, Dan Kepuasan Siswa Terhadap Loyalitas Siswa Di SMK Islam Sudirman 2 Ambarawa. *Journal UNNES-Educational Management* 5 (2) (2016) Page 156-162
- Austin, Amoon Jawaid. (2017). The Relation Between 'Student Loyalty' and 'Student Satisfaction' (A case of College/Intermediate Students at Forman Christian College). *European Scientific Journal*
- Hassan. Sallaudin. (2019). Mediating Effect of Corporate Image and Students' Satisfaction on The Relationship Between Service Quality And Students' Loyalty In Tvet Hlis. *Asian Academy of Management Journal*, Vol. 24, Supp. 1, 93–105, 2019
- Kaiser, Caspar and Nhat An Thrin. (2020). Positional, Mobility, and Reference Effects: How Does Social Class Affect Life Satisfaction in Europe?. *European Sociological Review*, 2021, 1–18
- Khusaeni, Ahmad. (2016). Hubungan Kualitas Pelayanan, Citra Sekolah, Kepuasan Siswa dan Loyalitas Siswa (Studi Empirik di SMK Negeri Rembang, Pasuruan, Jawa Timur). *Jurnal Aplikasi Manajemen (JAM)* Vol 14 No 4, 2016
- Kuswanto. (2018). Pengaruh Kualitas Layanan Dan Citra Sekolah Terhadap Loyalitas Stakeholder Sekolah Islam Al-Falah Kota Jambi. *Jurnal Pendidikan Ekonomi (JPE)* Vol 12 No 2
- Santini, Fernando & Ladeira, Wagner & Sampaio, Claudio & Costa, Gustavo. (2017). Student satisfaction in higher education: a meta-analytic study. *Journal of Marketing for Higher Education*. 27. 1-18. 10.1080/08841241.2017.1311980.
- Satria, Aisya Intan W. (2019). Analysis of Service Quality and Institutional Image on Satisfaction and the Implications on Customer Loyalty (Case Study: Yadika 12 Depok Junior High School). *Saudi Journal of Business and Management Studies*.
- Tjiptono, F., & Chandra, G. (2012). *Pemasaran Strategik*. Yogyakarta: Penerbit Andi.
- Wong, A. (2017). The relationship between institution branding, teaching quality and student satisfaction in higher education in Hong Kong. *Journal of Marketing and HR*, 4(1), 169–188.

The Effect of Investor Attention during Bookkeeping on IPO Underpricing: The Difference between Family and Non-Family Firms

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ABSTRACT: This study investigates the effect of investor attention on the level of IPO underpricing and whether family ownership status can moderate the effect. Investor attention was measured using the increment in Google Search Volume during the bookkeeping period. This study analyzes Indonesian IPO data from 2007-2021. Indonesia has a unique characteristic in which the majority of listed companies are family firms and provide a great research opportunity. The results show that the higher level of investor attention increases the level of IPO underpricing. Hence, it is postulated that higher investor attention reflects the IPO's popularity, increasing the demand for stock IPO and in turn increases IPO underpricing. In addition, the impact of investor attention is stronger (or weaker) on family or non-family due to many positive traits associated with family firm.

1 INTRODUCTION

The effect of investor attention on the level of underpricing has been frequently studied in developed country settings, such as United States and China (Da, Engelberg, & Gao, 2011; Liu, Sherman, & Zhang, 2014; Bajo & Raimondo, 2017; and Zhao, Xiong, & Shen, 2018). However, it has not been thoroughly explored yet in developing country setting. Choosing Indonesia as a setting provides a great research novelty because Indonesia has a unique characteristic where most of the listed firms are family firms. According to previous studies, family firms have better financial performance and are associated with technological innovation (Anderson & Reeb, 2003; Ashwin, Krishnan, & George, 2015). In the same vein, many researchers also suggests that family firms have an effective organizational structure, strategic & comprehensive decision making, reliable competence and focuses on improving the welfare of stakeholders because owners want to pass their business to their next generation (Miller et al, 2008; Eddelston, et al, 2010; Lumpkin, Brigham, & Moss, 2010). Thus, investors may have a preference to buy shares of family firms.

Previous studies use transactional-based proxies to measure investor attention, such as extreme returns (Barber & Odean, 2008); and trading volume (Gervais, Kaniel, & Mingelgrin, 2001; Barber & Odean, 2008). In this paper, Google Search was used as a proxy because it offers a unique opportunity to investigate investor attention before the firm is listed (Da et al., 2011) and it can be connected with the IPO first day return. The findings show that investor attention had a significant positive impact on IPO first day underpricing, which means that if a stock IPO garner more attention during its bookkeeping period, the higher its underpricing will be. Furthermore, the moderating effect of family ownership on the relationship between investor attention and underpricing was tested. On this note, it was found that the impact of investor attention to underpricing was stronger (or weaker) on family (or non-family), this finding is in line with the stewardship view of family firms. To the best of authors' knowledge, there has been no research examining the moderating effect of family ownership on the impact of investor attention on underpricing.

The rest of this paper is organized as follows. Section 2 describes the data description, Section 3 illustrates the results & discussion, and Section 4 concludes.

2 DATA DESCRIPTION

The population of this study is all non-financial companies listed on the Indonesia Stock Exchange (IDX), as of November 2021. Financial industry in the study population was not included because leverage was used as one of the control variables, and debt in financial institutions has different implications from other industries.

2.1 Sample & Data Collection

First, IPO firms' data from 1st January 2007 until 30th November 2021 were obtained and resulted a sample size of 425 firms. After excluding financial firms from the sample, there were 380 sample size left, and then prospectus data from the company's official website or financial websites such as IDN Financials, IDX, and other sources on the internet were downloaded. After that, companies whose prospectus were not found from the sample were excluded, hence resulted 338 sample size. Lastly, companies with incomplete financial data were excluded from the sample, therefore, the final sample size involved in this study were 311 firms.

3 RESULT AND DISCUSSION

Table 1 below presents that investor attention had a significant positive impact on underpricing. For every 1-point increment in ΔSVI , the underpricing would increase by 0.3%. This result is in line with previous studies of Bajo & Raimondo (2017), Da et al. (2011), Liu et al. (2014), and Zhao et al. (2018). The interaction variable $\Delta SVI * Fam$ had a significant negative moderating effect. To measure the family ownership variable, dummy variable was use and given a value of 0 if the company is a family firm, and 1 if other than a family firm. Therefore, a negative value of this interaction variable means that the positive impact of attention to underpricing will be lower (or higher) on non-family firm (or family firm). To calculate the level of underpricing and investor attention, the following formula [1] and [2] were used respectively, and the hypothesis testing was done based on the research model [3].

$$Und_i = \ln \left(\frac{Closing\ Price\ d1_i}{Opening\ Price\ d1_i} \right) \quad [1]$$

$$\Delta SVI_{it} = \frac{1}{n} \sum_{d=t-n}^t SVI_{id} - \frac{1}{30} \sum_{g=t-n-30}^{t-n-1} SVI_{ig} \quad [2]$$

$$Und_i = \beta_0 + \beta_1 \Delta SVI_i + \beta_2 \Delta SVI_i \times NonFam_i + \sum_{g=5}^8 \beta_g control_i + \varepsilon_i \quad [3]$$

Where Und_i is the underpricing of company i , β_0 is the intercept, ΔSVI_i is investor attention of company i , measured by the increase in SVI during the bookkeeping period, $\Delta SVI_i \times NonFam_i$ is the interaction variable between investor attention and ownership dummy which is given the value of 0 if the company is owned by a family and 1 if otherwise, this variable shows the moderating effect of family ownership, and $control_i$ are all control variables used in this study, which consist of size, leverage, previous 30 days of underpricing, ratio of retained shares to offered shares, and previous 30 days IHSG market returns.

Table 1 below presents the coefficient and p-value of 2 OLS regression to see the effect of investor attention on underpricing. The dependent variable is underpricing. Regression [1] looks at the effect of investor attention on underpricing without moderating variable; while Regression [2] shows the effect of investor attention on underpricing with family ownership as a moderating variable.

Table 1. OLS Regression

Dependent Variable: Underpricing				
Variable	1		2	
	Coeff.	Prob.	Coeff.	Prob.
C	0.501	0.000	0.497	0.000
ΔSVI	0.002	0.041	0.003	0.008
ΔSVI*NonFam			-0.003	0.088
Size	-0.025	0.000	-0.025	0.000
Leverage	-0.017	0.667	-0.016	0.725
Prev30d Und.	0.320	0.000	0.312	0.000
Retain Ratio	0.005	0.802	0.003	0.890
Prev30d IHSG	-1.381	0.800	-1.061	0.825
N	311		311	
Adjusted R ²	0.197		0.200	
Prob(F-stat.)	0.000		0.000	

4 CONCLUSION

In this study, the effect of investor attention on underpricing and the moderating effect of family ownership status on this relationship was analyzed. Using 311 IPO data of Indonesian companies from January 2007 to November 2021, it was found that the level of investor attention had a significant positive effect on IPO underpricing. These results are in accordance with previous studies by Bajo & Raimondo (2017), Da et al. (2011), Liu et al. (2014), and Zhao et al. (2018) and the positive effect of attention on underpricing will be stronger (or weaker) in family companies (or non-family), these findings are in line with the view of stewardship theory of family companies. For retail investors, this research provides insight into the characteristics of companies that can be considered before investing in IPO shares. The researcher's findings show that in general, investors can predict short-term price movements of family companies after the IPO by looking at the magnitude of the increase in the company's Google SVI value during the bookkeeping period. For further researchers, the results of this study open new opportunities for subsequent research by adding empirical evidence that family ownership status as a moderating variable can strengthen the positive influence of investor attention on the level of IPO underpricing, especially in the Indonesian country setting.

REFERENCES

- Agostino, M., & Ruberto, S. (2021). Environment-friendly practices: Family versus non-family firms. *Journal of Cleaner Production*, 329(November), 129689.
- Allen, F., & Faulhaber, G. R. (1989). Signalling by underpricing in the IPO market. *Journal of Financial Economics*, 23(November), 303–323.
- Anderson, R. C., & Reeb, D. M. (2003). American Finance Association Founding-Family Ownership and Firm Performance: Evidence from the S & P 500. *The Journal of Finance*, 58(3), 1301–1328.
- Andres, C. (2008). Large shareholders and firm performance-An empirical examination of founding-family ownership. *Journal of Corporate Finance*, 14(4), 431–445.
- Ashwin, A. S., Krishnan, R. T., & George, R. (2015). Family firms in India: family involvement, innovation and agency and stewardship behaviors. *Asia Pacific Journal of Management*, 32(4), 869–900.
- Atiase, R. K. (1985). Predisclosure Information, Firm Capitalization, and Security Price Behavior Around Earnings Announcements. *Journal of Accounting Research*, 23(1), 21–36.
- Bajo, E., & Raimondo, C. (2017). Media sentiment and IPO underpricing. *Journal of Corporate Finance*, 46, 139–153.
- Barber, B. M., & Odean, T. (2008). All that Glitters: The Effect of Attention and News on the Buying Behavior of Individual and Institutional Investors. *SSRN Electronic Journal*, (November).
- Butler, A. W., Keefe, M. O. C., & Kieschnick, R. (2014). Robust determinants of IPO underpricing and their implications for IPO research. *Journal of Corporate Finance*, 27, 367–383.

- Chan, K., Wang, J., & Wei, K. C. J. (2004). Underpricing and long-term performance of IPOs in China. *Journal of Corporate Finance*, 10(3), 409–430.
- Chan, Y. C., Chui, A. C. W., & Kwok, C. C. Y. (2001). The impact of salient political and economic news on the trading activity. *Pacific Basin Finance Journal*, 9(3), 195–217.
- Chang, Y. B., & Kwon, Y. O. (2020). Attention-grabbing IPOs in early stages for IT firms: An empirical analysis of post-IPO performance. *Journal of Business Research*, 109(January 2019), 111–119.
- Da, Z., Engelberg, J., & Gao, P. (2011). In Search of Attention. *Journal of Finance*, 66(5), 1461–1499.
- Dimpfl, T., & Jank, S. (2016). Can internet search queries help to predict stock market volatility? *European Financial Management*, 22(2), 171–192.
- Eddleston, K. A., Kellermanns, F. W., & Zellweger, T. M. (2012). Exploring the Entrepreneurial Behavior of Family Firms: Does the Stewardship Perspective Explain Differences? *Entrepreneurship: Theory and Practice*, 36(2), 347–367.
- Grullon, G., Kanatas, G., & Weston, J. P. (2004). Advertising, breadth of ownership, and liquidity. *Review of Financial Studies*, 17(2), 439–461.
- Guo, K., Sun, Y., & Qian, X. (2017). Can investor sentiment be used to predict the stock price? Dynamic analysis based on China stock market. *Physica A: Statistical Mechanics and Its Applications*, 469, 390–396.
- Huang, W., Li, J., & Zhang, Q. (2019). Information asymmetry, legal environment, and family firm governance: Evidence from IPO underpricing in China. *Pacific Basin Finance Journal*, 57(October 2017), 101109.
- Jin, X., Shen, D., & Zhang, W. (2016). Has microblogging changed stock market behavior? Evidence from China. *Physica A: Statistical Mechanics and Its Applications*, 452, 151–156.
- Liu, L., Sherman, A., & Zhang, Y. (2014). An Attention Model of IPO Underpricing, With Evidence on Media Coverage. *Working Paper*. Retrieved from
- Lumpkin, G. T., Martin, W., & Vaughn, M. (2008). Family orientation: Individual-level influences on family firm outcomes. *Family Business Review*, 21(2), 127–138.
- Miller, D., Le Breton-Miller, I., & Scholnick, B. (2008). Stewardship vs. stagnation: An empirical comparison of small family and non-family businesses. *Journal of Management Studies*, 45(1), 51–78.
- Mitchell, M. L., & Mulherin, J. H. (1994). The impact of public information on the stock market. *The Journal of Finance*, 49(3), 923–950.
- Mok, H. M. K., & Hui, Y. V. (1998). Underpricing and aftermarket performance of IPOs in Shanghai, China. *Pacific Basin Finance Journal*, 6(5), 453–474.
- Peng, L., & Xiong, W. (2006). Investor attention, overconfidence and category learning. *Journal of Financial Economics*.
- Rajan, R. G., & Zingales, L. (1995). What do we know about capital structure? Some evidence from international data. *The Journal of Finance*, 50(5), 1421–1460.
- Ritter, J. R. (1991). The Long-Run Performance of initial Public Offerings. *The Journal of Finance*, 46(1), 3–27.
- Ritter, J. R. (2021). Initial Public Offerings: Underpricing. *Warrington College of Business*.
- Ritter, J. R., & Welch, I. (2002). A review of IPO activity, pricing, and allocations. *The Journal of Finance*, 57(4), 1795–1828.
- Takeda, F., & Wakao, T. (2014). Google search intensity and its relationship with returns and trading volume of Japanese stocks. *Pacific Basin Finance Journal*, 27(1), 1–18.
- Vozlyublennaya, N. (2014). Investor attention, index performance, and return predictability. *Journal of Banking and Finance*, 41(1), 17–35.
- Zhao, R., Xiong, X., & Shen, D. (2018). Investor attention and performance of IPO firms: Evidence from online searches. *Physica A: Statistical Mechanics and Its Applications*, 508(92), 342–348.
- Zingales, L. (1995). Insider ownership and the decision to go public. *Review of Economic Studies*, 62(3), 425–448.

Employee Readiness for Change toward Indonesia's New Policy: Examining the Effect of Ethical Leadership, Organizational Culture, and Organizational Commitment

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ABSTRACT: One of five government's work priority is a simplification of bureaucracy (delaying). It is found that the success of change in an organization is mainly dependent on its employees. The objective of this study is to examine the relationship between ethical leadership, organizational culture, and individual readiness for change and the function of organizational commitment as a mediator. The novelty of this study is analyzing employee readiness in dealing with delaying policy. The samples of this study are 251 employees of a public sector organization. The study found that ethical leadership and organizational culture positively influence individual readiness for change. It is also revealed that organizational commitment had no mediation effect.

1 INTRODUCTION

The organization is subject to change as it is critical for its success and survival. The success of change in an organization is heavily dependent on their employees. The reason for this because the organization only announces changes and the implementation is handled by employees and will continue for an extended period (Shah et al., 2017). The employee hierarchy of echelon III and IV has been cited as a factor contributing to the bureaucracy's slow process. As a result, one of five priorities in the second term of President Joko Widodo (2019-2024) is a simplification of bureaucracy or delaying by reducing the echelon system in Ministries by two levels. This policy applies to all Ministries and institutions at the central and regional levels. According to the evaluation, the delaying policy is facing some challenges: (1) understanding that civil servant career development is only in structural positions; (2) limited scope of new functional positions for ex-echelon; (3) the implementation process is not aligned between synchronization of positions with the organizational structure; and (4) disparity allowances for functional positions *as explained by the Ministry of Administrative Reform and Bureaucratic Reform*. The change organization's agenda necessitates adaptation on both personnel and systemic level.

Employees are expected to be more adaptable and receptive to change as the faster employees adapt, the more accessible they would be to follow the process of change. Individual readiness can be defined as an individual's reaction to a change in which they have faith in their organization's capacity to handle it (Allaoui & Benmoussa, 2020). If employees are ready to change, they will implement strategic behavior for organizational achievements (Muafi et al., 2019). Readiness to change is analyzed using (1) context changes (context), (2) content changes (content), (3) process changes, and (4) individual attributes (Choi & Ruona, 2011). These are typically classified according to context (e.g. organizational culture, leadership), content (e.g. change level, liking, and appropriateness), and process (examples of successful change history and positive experiences in previous change projects, and the fairness of the change process). Leaders play a crucial role in developing bonds with employees and these bonds contribute to the organization's overall strength. Among other contextual factors, organizational culture (OC) is widely recognized as a significant factor that can either increase or decrease an individual's willingness to change (Haffar et al., 2014). To explore the issue, this study highlights the level of individual readiness in dealing with bureaucratic simplification (delaying) by evaluating the effect of ethical leadership, organizational culture, and organizational commitment on individual readiness for change. The mediating role of organizational commitment will complete the analysis in identifying factors that influence individual readiness for change.

2 LITERATURE REVIEW

Hanpachern et al. (1998) explain that readiness is the mental, psychological, and physical ability of a person to be involved in a change agenda in developing an organization they work for. According to Vakola (2014), readiness to change is a normatively acceptable behavior demonstrated via personal acts and interpersonal interactions, involving two-way communication, reinforcement, decision-making, and promoting similar behaviors of their followers. Brown et al. (2005) describe ethical leadership as normatively suitable behavior displayed via personal acts and interpersonal interactions, as well as the promotion of these behaviors to followers via two-way communication, ongoing, and decision-making. Ethical leadership has a significant role because it has a positive effect on the employees' work behaviors in public sector organizations (Qing et al., 2020).

Organizational culture is crucial in organizations. Denison & Mishra (1995) define organizational culture as values and beliefs that are the basic principles forming the basis for management practice and are associated with behaviors that reinforce these values and principles. If individual motivation and organizational culture are in harmony, members may achieve their full potential and be more productive. In this case, organizational culture consists of three different dimensions, including bureaucratic, inventive, or supportive, to varying degrees (Wallach, 1983). Allen & Meyer (1990) suggest that organizational commitment is defined as employee feelings that impact an individual's decision to continue as a member of an organization. In this case, there are three dimensions of organizational commitment explaining the characteristics of the relationship between employees and the organization, which are affective commitment, continuance commitment, and normative commitment.

3 METHODS

To test the hypotheses, a ministry in Jakarta was considered. One of the criteria of this study is echelon III and IV employees. The number of samples is determined by using the Slovin formula with a level of error $\epsilon = 0.05$ and a sample of 251 respondents was obtained. The data were collected using a structured questionnaire. Before being used to measure the study variables of this study, the questionnaire was tested for validity and reliability. The collected data were analyzed using SEM (Structural Equation Modeling) of Lisrel software.

A seven-point Likert scale was chosen for all variables in this study (1= "strongly disagree", 7 = "strongly agree"). Individual readiness for change was assessed with the original version of the Change Readiness Survey (Hanpachern et al., 1998). Brown's Ethical Leadership Scale was used to assess ethical leadership. Organizational Culture was measured using 24-items from Organizational Culture Index by Wallach (1983). To assess Organizational Commitment, an 18-items of Organizational Commitment Questionnaire (OCQ) from Allen & Meyer (2004) was used.

The hypotheses in this study are stated as follows:

- H1: Ethical leadership positively and significantly related to readiness for change
- H2: Organizational culture positively and significantly related to readiness for change
- H3: Ethical leadership positively and significantly related to organizational commitment
- H4: Organizational culture positively and significantly related to organizational commitment
- H5: Organizational commitment positively and significantly related to readiness for change
- H6: Ethical leadership positively and significantly related to readiness for change with organizational commitment as a mediator
- H7: Organizational Culture positively and significantly related to readiness for change with organizational commitment as a mediator

4 RESULTS

The result shows 46% male employees and 54% female employees from the 245 questionnaires. Most of the respondents are 36-46 years old (41%), working as sub coordinator or echelon IV (60%), and have worked for 11-20 years (41%). The validity was evaluated by the value of standardized loading factors (SLFs), while reliability was evaluated by the value of construct reliability (CR) and average variance extracted (AVE). All indicators in this study were valid and reliable.

Table 1. Hypotheses test.

H	Path	B	T-value	Result
1	EL \rightarrow RFC	0.21	2.40	Supported
2	OC \rightarrow RFC	0.41	4.45	Supported
3	EL \rightarrow OCM	0.18	2.15	Supported
4	OC \rightarrow OCM	0.26	4.21	Supported
5	OCM \rightarrow RFC	0.07	1.15	Not Supported
6	EL \rightarrow OCM \rightarrow RFC			Not Supported
7	OC \rightarrow OCM \rightarrow RFC			Not Supported

Table 1 shows that ethical leadership ($\beta = -0.21$, $t = -2.40$) is positively and significantly related to readiness for change. Organizational culture ($\beta = 0.41$, $t = 4.45$) is positively and significantly related to readiness for change. H3 stated ethical leadership relates positively and significantly to organizational commitment. From the findings, organizational commitment is directly and significantly influenced by ethical leadership ($\beta = 0.18$, $t = 2.15$). Organizational commitment is also directly and significantly influenced by organizational culture ($\beta = 0.26$, $t = 4.21$). Meanwhile, organizational commitment has a positive influence on readiness for change, but it is not significant ($\beta = 0.07$, $t = 1.15$). In other words, hypothesis 5 is rejected.

The mediation effect test is done using the Sobel test. Both Z-values for the mediating effect is below the criteria ($Z > 1.96$). Following the result, it can be concluded that organizational commitment has no mediation effect in the relationship. Thus, H6 and H7 are rejected.

4.1 Discussion

This study shows that ethical leadership has a positive and significant effect on individual readiness for change. The result supports previous research which stated when employees are led by ethical leaders, it can underlie employees have a stronger readiness to change (Metwally, Ruiz-Palomino, Metwally & Gartzia, 2019). This study revealing that organizational culture has a positive and significant effect on individual readiness for change. Haffar, Al-Karaghoul, & Ghoneim (2014) found that organizational culture is part of from foundation to achieve individual readiness for change. Furthermore, this study revealing that ethical leadership has a positive significant effect on organizational commitment (Bahadori et al., 2021) and organizational commitment is the result of organizational culture (Manetje, 2008).

The results of this study indicate that organizational commitment has no significant effect on individual readiness for change. A similar study whose results can support this finding is the research conducted by Azilah & Khairudin (2019) who found that organizational commitment does not show significance with employee readiness even though they have a positive relationship.

5 CONCLUSION

Based on the structural model test and the result, it can be concluded that ethical leadership and strong organizational culture with a conducive work environment can improve employee readiness for change. The findings of the path analysis organizational commitment have no significant effect on individual readiness for change and organizational commitment has no mediation effect. It can be concluded that employees actually have a commitment to change but not affect an individual readiness for change when several factors exist such as information overload (Rafferty, 2013).

It should be noted that this study has several limitations and some suggestions for future studies to overcome the limitations. First, the study sample is limited to employees of a ministry so the results of this study cannot be generalized to other ministries. Second, the length of the questionnaire makes it possible for respondents to be tired and pay less attention to survey questions. Future studies should focus on a shorter questionnaire.

REFERENCES

- Allen, N. J., & Meyer, J. P. (1990). The measurement and antecedents of affective, continuance and normative commitment to the organization. *Journal of Occupational Psychology*, 63(1). <https://doi.org/10.1111/j.2044-8325.1990.tb00506.x>
- Bahadori, M., Ghasemi, M., Hasanpoor, E., Hosseini, S. M., & Alimohammadzadeh, K. (2021). The influence of ethical leadership on the organizational commitment in fire organizations. *International Journal of Ethics and Systems*, 37(1). <https://doi.org/10.1108/IJOES-04-2020-0043>
- Brown, M. E., Treviño, L. K., & Harrison, D. A. (2005). Ethical leadership: A social learning perspective for construct development and testing. *Organizational Behavior and Human Decision Processes*, 97(2). <https://doi.org/10.1016/j.obhdp.2005.03.002>
- Choi, M., & Ruona, W. E. A. (2011). Individual readiness for organizational change and its implications for human resource and organization development. *Human Resource Development Review*, 10(1). <https://doi.org/10.1177/1534484310384957>
- Haffar, M., Al-Karaghoul, W., & Ghoneim, A. (2014). An empirical investigation of the influence of organizational culture on individual readiness for change in Syrian manufacturing organizations. *Journal of Organizational Change Management*, 27(1). <https://doi.org/10.1108/JOCM-04-2012-0046>
- Hanpachern, C., Morgan, G. A., & Griego, O. V. (1998). An extension of the theory of margin: A framework for assessing readiness for change. *Human Resource Development Quarterly*, 9(4). <https://doi.org/10.1002/hrdq.3920090405>
- Manetje, O. M. (2008). The impact of organisational culture on organisational commitment. *Book Chapter*. <https://doi.org/10.1024/0301-1526.32.1.54>
- Muafi, Fachrunnisa, O., Siswanti, Y., El Qadri, Z. M., & Harjito, D. A. (2019). Empowering Leadership and Individual Readiness to Change: the Role of People Dimension and Work Method. *Journal of the Knowledge Economy*, 10(4). <https://doi.org/10.1007/s13132-019-00618-z>
- Nor Azilah, H., & Muhamad Khairi, K. (2019). Factors Affecting Employee Readiness for Change in ABC Dagang Berhad. *Selangor Business Review*, 4(2).
- Qing, M., Asif, M., Hussain, A., & Jameel, A. (2020). Exploring the impact of ethical leadership on job satisfaction and organizational commitment in public sector organizations: the mediating role of psychological empowerment. *Review of Managerial Science*, 14(6). <https://doi.org/10.1007/s11846-019-00340-9>
- Rafferty, A. E., Jimmieson, N. L., & Armenakis, A. A. (2013). Change Readiness: A Multilevel Review. In *Journal of Management* (Vol. 39, Issue 1). <https://doi.org/10.1177/0149206312457417>
- Shah, N., Irani, Z., & Sharif, A. M. (2017). Big data in an HR context: Exploring organizational change readiness, employee attitudes and behaviors. *Journal of Business Research*, 70. <https://doi.org/10.1016/j.jbusres.2016.08.010>
- Vakola, M. (2014). What's in there for me? Individual readiness to change and the perceived impact of organizational change. *Leadership and Organization Development Journal*, 35(3). <https://doi.org/10.1108/LODJ-05-2012-0064>
- Wallach, E. J. (1983). Individuals and Organizations: The Cultural Match. In *Training & Development Journal* (Vol. 37, Issue 2)

Return Resilience and Volatility: The Role of ESG Score in India before and during COVID-19 Pandemic

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ABSTRACT: The study aims at (1) investigating the effect of ESG Score on return resilience and volatility of individual stocks in India before and during the COVID-19 pandemic and (2) identifying which ESG factors have the greatest influence on return resilience. This study used panel data with the period before the COVID-19 pandemic, which is on April 2018 to February 2020 and the period of COVID-19 outbreak is on March 2020 to March 2021. The results showed that ESG Score had no effect on abnormal return. This indicates that the ESG has not been able to sustain the company's ability to maintain their return especially facing the market crash. ESG Score was also found negatively affecting volatility on its stock price. In addition, this study found that social factors became the most affecting factor of return resilience before and during the COVID-19 pandemic which in line with legitimacy theory.

1 INTRODUCTION

Globally, ESG factor is closely related with investment decisions. Based on data from the Global Sustainable Investment Alliance (2019), ESG investing increased by about 34% in 2016-2018 in major global financial markets along with investor decisions involving ESG factors as a consideration (Folger-Laronde et al., 2020). Lins et al. (2017) stated that companies involving ESG factors in their business operations will get more attention from investors because they are considered more prepared, sustainable and have better risk management in anticipating conditions in the event of a market crash.

As ESG investing has grown, this ESG topic has also attracted the attention of researchers to explore research, particularly during periods of crisis. However, most previous studies were conducted using samples in developed countries where the concept of ESG has been much developed in the region such as in the US and Europe (Albuquerque et al., 2020; Alda, 2020; Bae et al., 2021; Díaz et al., 2021; Folger-Laronde et al., 2020; Kanamura, 2021; Pavlova & de Boyrie, 2021), by involving target emerging markets as samples (Broadstock et al., 2021; Garcia et al., 2017; Sadiq et al., 2020). However, the results attribute ESG performance to return resilience and also the volatility obtained from various previous literatures also tend to be inconclusive. Therefore, India was chosen as a sample because it is one of the worst affected countries globally and occurred the largest foreign capital outflow since March 2020 due to investor concerns (Acharya, 2021).

In this paper, abnormal return was used as a proxy of return resilience follows Albuquerque et al. (2020) and range-based volatility method from Parkinson (1980) as a proxy of volatility, judged more efficient than standard deviation of return. This study seeks to be significant for the literature on ESG/sustainable investing since this study analyzed the resilience of return and volatility because Fama & French's (1993) 3 Factor and Amihud's (2002) Illiquidity ratio were included as control variable. The remainder of this paper is organized as follows: Section 2 describes the data and methodology. Section 3 presents the result & discussion, and The final section elaborates the conclusion.

2 DATA & METHODOLOGY

Data panel used in this study consist of 51 companies in India completely published their ESG report to Refinitiv Eikon during the period of 2019-2021. The total observations are 1,836 observations since other data used in monthly basis. Furthermore, dummy variable for analyzing the impact of COVID-19 crisis were used.

In this research, we operate random effect model regression as our purpose is to look at the effect of independent variables as a whole on dependendent variables. To test our hypothesis, there are three different research models for each hypothesis:

H₁ : ESG Score has a positive effect on return resilience

$$AR_{i,t} = \alpha_0 + \alpha_1 ESG_i^{yt} + \alpha_2 (R_{m,t} - R_{f,t}) + \alpha_3 SMB_t + \alpha_4 HML_t + \alpha_5 ILLIQ_{i,t} + D_C + \varepsilon_i \quad [1]$$

H₂ : ESG Score has a negative effect on stock price volatility

$$Volat_{i,t} = \beta_0 + \beta_1 ESG_i^{yt} + \beta_2 Size_{i,t} + \beta_3 ILLIQ_t + D_C + \varepsilon_i \quad [2]$$

H₃ : Social Factor is the most significant factor affecting return resilience

$$AR_{i,t} = \gamma_0 + \gamma_1 E_i^{yt} + \gamma_2 S_i^{yt} + \gamma_3 G_i^{yt} + \gamma_4 (R_{m,t} - R_{f,t}) + \gamma_5 SMB_t + \gamma_6 HML_t + \gamma_7 ILLIQ_{i,t} + D_C + \varepsilon_i \quad [3]$$

Where $AR_{i,t}$ is abnormal return (monthly) of company i; ESG_i^{yt} , E_i^{yt} , S_i^{yt} , G_i^{yt} are ESG Score, Environment, Social, and Governance Score obtained from Refinitiv Eikon (annual), respectively; $(R_{m,t} - R_{f,t})$, SMB_t , HML_t are market factor, size factor and value factor of FF3F (1993), respectively; $ILLIQ_{i,t}$ is Amihud's (2002) Illiquidity ratio of company i; $Size_{i,t}$ is market capitalization of company i; D_C is dummy variable that takes value of 0 before COVID-19 outbreak (April 2018 – February, 2020) and 1 otherwise (March 2020 – March 2021).

The independent variable is ESG Score. The dependent variables are abnormal return for hypothesis 1 and 3, and range-based volatility (Parkinson, 1980) for hypothesis 2 with the following formula:

$$AR_{i,t} = R_{i,t} - R_{m,t} \quad [4]$$

$$Volat_{i,t} = \frac{1}{4 \ln 2} (\ln H_{i,t} - \ln L_{i,t})^2 \quad [5]$$

The control variables are excess market return, SMB, and HML as Fama-French 3 Factor Model (1993) for hypothesis 1 and 3, Amihud's Illiquidity (2002) for hypothesis 1,2,3, and size for hypothesis 2 measured by using the following formulas:

$$Excess\ market\ return_t = R_{m,t} - R_{f,t} \quad [6]$$

$$SMB_t = \frac{(SH+SL) - (BH+BL)}{2} \quad [7]$$

$$HML_t = \frac{(SH+BH) - (SL+BL)}{2} \quad [8]$$

$$Illiquidity\ Ratio_{i,t} = \frac{|stock\ return|}{trading\ volume \times stock\ price} \quad [9]$$

$$Size_{i,t} = \ln (Market\ Capitalization) \quad [10]$$

3 RESULT AND DISCUSSION

Table 1. Random-Effect Model Regression

	Panel A.1	Panel A.2	Panel B
Variable	Return Resilience		Volatility
	<i>coefficient</i>	<i>coefficient</i>	<i>coefficient</i>
	<i>t-stat</i>	<i>t-stat</i>	<i>t-stat</i>
C	-0.0054 (-0.5289)		0.2666*** (13.3688)

<i>ESG Score</i>	0.0247 1.8426		-0.0147* (-1.5353)
<i>E Score</i>		-0.0165 (-0.9081)	
<i>S Score</i>		0.0248 (1.3054)	
<i>G Score</i>		-0.0018 (-0.1337)	
<i>Excess market return</i>	-1.0713*** (-18.3871)	-1.0710*** (-18.3586)	
<i>SMB</i>	0.2806*** (2.7045)	0.2816*** (2.7100)	
<i>HML</i>	-0.1267* (-1.5929)	-0.1271* (-1.5948)	
<i>Amihud Illiquidity</i>	-0.0371*** (-4.3189)	-0.0371*** (-4.2846)	-0.0020 (0.7539)
<i>Size</i>			-0.0123*** (-11.7962)
<i>Dummy Covid</i>	-0.0161*** (-2.6411)	-0.0157*** (-2.5715)	0.0141*** (8.0768)
<i>R-squared</i>	0.2898	0.2898	0.0987
<i>F-statistics</i>	124.4255	93.1979	50.1831
<i>Observations</i>	1836	1836	1836

Result on Panel A.1 shows that ESG Score was indicated to be unable to sustain resilience of their returns because study found no significant effect. This result confirm finding of Bae et al. (2021) and Takahashi & Yamada (2021) also stated that there was no influence of ESG Score on abnormal returns. Furthermore, Takahashi and Yamada (2021) argue that although ESG reputation is beneficial in times of crisis, these results would certainly be influenced by the extent to which companies in related countries are serious and pay close attention to ESG performance and the extent to which investors are aware of it. On average, companies in India were still in the process of developing commitments related to their sustainability performance because the transparency results of reporting were still at a moderate level. Besides that, this study also finds ESG Score negatively affected the level of volatility of stock prices. These findings support the results of research from Bodhanwala & Bodhanwala (2018); Broadstock et al. (2021); De & Clayman (2015); Kanamura (2021).

In addition, social factors were indicated as the most influential factors on return resilience among the 3 ESG pillars. The results are in line with the previous findings of Albuquerque et al. (2020), Díaz et al. (2021), and Folger-Laronde et al. (2020) indicating that social factors are main driving factors. As explained in the legitimacy theory, the company continues to pay attention to its sustainability performance, hence, the social contract and public trust are maintained despite the shock of the crisis and meet long-term targets. Furthermore, the company will face an external world whose changes are very dynamic and it is believed that the company's behavior will adjust to the norms that apply in the surrounding community environment (Triyani et al., 2020).

4 CONCLUSION

With 1,836 observations, it was found that the ESG Score had no effect on return resilience. This indicates that the ESG Score as a measure of sustainable investing has not been able to demonstrate the company's ability to maintain its returns, especially in facing the crisis. Beside that, by using range-based volatility, it was found that the ESG Score had a negative influence on the level of volatility of the company's stock price. Then, when analyzing the factors that have the greatest influence on return resilience, it can be concluded that social factors (S) are factors among the three ESG factors that have the greatest influence on return resilience. Therefore, this supports the legitimacy theory where the company will try to improve its sustainability performance to

maintain the social contract and public trust to ensure its long-term goals run accordingly and are able to anticipate when a crisis occurs.

REFERENCES

- Acharya, N. (2021, 27 April). "India Stocks Set For Largest Foreign Outflows Since March 2020/2021". Bloomberg, <https://www.bloomberg.com/news/articles/2021-04-27/india-stocks-set-for-largest-foreign-outflows-since-march-2020>.
- Albuquerque, R., Koskinen, Y., Yang, Shuai. & Zhang, C. 2020. Resiliency of Environmental and Social Stocks: An Analysis of the Exogenous COVID-19 Market Crash. *The Review of Corporate Finance Studies*, 9 : 593-621
- Alda, M. 2020. ESG fund scores in UK SRI and conventional pension funds: Are the ESG concerns of the SRI niche affecting the conventional mainstream?. *Finance Research Letters*, 36: 1-8.
- Amihud, Y. 2002. Illiquidity and Stock Returns: Cross-Section and Time-Series Effects. *Journal of Financial Markets*, 5: 31-36.
- Bae, K-H., Ghoul, S.E., Gong, Z., & Guedhami, O. 2021. Does CSR matter in times of crisis? Evidence from the COVID-19 pandemic. *Journal of Corporate Finance*, 67: 1-18
- Bodhanwala, S., & Bodhanwala, R. 2018. Does Corporate Sustainability Impact Firm Profitability? Evidence from India. *Management Decision*, 56 (8): 1734-1747
- Broadstock, D.C., Chan, K., Cheng, L.T.W., & Wang, X. 2021. The role of ESG performance during times of financial crisis: Evidence from COVID-19 in China. *Finance Research Letters*, 31: 1-11
- Diaz, V., Ibrushi, D., Zhao, J. 2021. *Reconsidering systematic factors during the Covid-19 pandemic – The rising importance of ESG*. Finance Research Letter, 38.
- De, I. and Clayman, M.R. 2014. *The benefits of socially responsible investing: an active manager's perspective*. The Journal of Investing, 24(4): 49-72.
- Fama, E.F. and French, K.R. 1993. Common Risk Factors in The Returns on Stocks and Bonds. *Journal of Financial Economics*, 33(1): 3–56.
- Folger-Laronde, Z., Pashang, S., Feor, L., & ElAlfy, Amr. 2020. ESG Ratings and Financial Performance of Exchange-traded Funds during the Covid-19 Pandemic. *Journal of Sustainable Finance & Investment*: 1-7.
- Garcia, A.S., Mendes-Da-Silva, W., Orsato, R.J. 2017. Sensitive industries produce better ESG performance: Evidence from emerging markets. *Journal of Cleaner Production*, 150: 135-147
- Kanamura, T. 2021. Risk Mitigation and Return Resilience for High Yield Bond ETFs with ESG Components. *Finance Research Letters*, 41.
- Lins, K.V., Servaes, H., Tamayo, A. 2017. Social Capital, Trust, and Firm Performance: The Value of Corporate Social Responsibility during the Financial Crisis. *The Journal of Finance*, 72(4): 1785-1824
- Parkinson, M. 1980. The Extreme Value Method for Estimating the Variance of the Rate of Return. *The Journal of Business*, 53(1): 61-65
- Pavlova, I. & de Boyrie, M.E. (2021). ESG ETFs and the COVID-19 stock market crash of 2020: Did clean funds fare better?. *Finance Research Letters*.
- Sadiq, M., Singh, J., Raza, M., & Mohamad, S. 2020. The Impact of Environmental, Social and Governance Index on Firm Value: Evidence from Malaysia. *International Journal of Energy Economics and Policy*, 10(5): 555-562
- Takahashi, H. & Yamada, K. 2021. *When the Japanese stock market meets COVID-19: Impact of ownership, China and US exposure, and ESG channels*. *International Review of Financial Analysis*, 74: 1-15
- Triyani, A., Setyahuni, S.W, & Kiryanto. 2020. The Effect Of Environmental, Social and Governance (ESG) Disclosure on Firm Performance: The Role of CEO Tenure. *Jurnal Reviu Akuntansi dan Keuangan*, 10(2): 261-270

How Can Perceived Support Improve Employees' Motivation to Learn? A Case Study of Supreme Audit Board

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ABSTRACT: This research proposes an alternate research model connected to the components that impact workers' attitudes and conduct in the workplace, in response to requests for additional subject factor from the Supreme Audit Board in Indonesia. The aim of this research is to uncover the processes that inspire workers to be motivated to learn, considering the importance of education and training in the Supreme Audit Board, especially given budgetary constraints. The research looked at samples from 367 Supreme Audit Board workers. Quantitative analysis and structural equation modelling approaches were used to investigate the impact of perceived support and organizational commitment on motivation to learn. The result is that the favorable relationship between perceived supervisor support and employees' motivation to learn is fully mediated by perceived support and organizational commitment. Furthermore, perceived organizational support, affective commitment and normative commitment reveal a favorable link between employees' perceptions of supervisor support and their motivation to learn in training.

1 INTRODUCTION

Human resources are the most valuable asset an organization has, and there is a link between human resource management and overall performance (Thang, 2009). According to Vermeeren (2017), the public sector is adopting a successful education and training system from the private sector (Mylona & Mihail, 2019). Motivation to learn (MTL), associated with the direction, intensity, and behavioral learning consistency in the learning context, is a critical component of the formal training program efficacy (Bell, Tannenbaum, Ford, Noe & Kraiger, 2017). Employers and employees create an exchanged connection based on the notion of social exchange (Blu, 1964 in Towler, Watson & Surface, 2014). Perceived supervisor support (PSS) has a favorable effect on employees' MTL when supervisors assist in training and development opportunities (Towler, Watson & Surface, 2014). The findings of a positive link between PSS and perceived organizational support (POS) are commonly understood as PSS causes POS, according to the theory of organizational support (Eisenberger, Stinglhamber, Vanderberghe, Sucharski & Rhoades, 2002). Positive employee behavior, such as POS and organizational commitment, is expected in the context of intermediaries, as the PSS concept reflects the mutual exchange between superiors and employees due to interactions based on trust and commitment (Cropanzano & Mitchell, 2005).

This research offers two contributions to the literature on MTL in the public sector. First, this research enriches the study by Mylona & Mihail (2019) that covers only the public sector employees in Greece. At the same time, this research involves the Supreme Audit Board, the only state financial audit institution in Indonesia. This research is expected to add to the literature on public servant training and development by presenting a novel perspective from the Supreme Audit Board in a developing nation that can be used in future comparative studies and solves the problem of employee training hours. Second, it considers the mediating role of POS, when the behavior of direct supervisor as participants in the organization, as the only factor when the behavior of officials is considered.

The objective of this research is to examine four related topics, including; first, the effect of PSS on MTL; second, the mediated factor by organizational support in the relationship between PSS and MTL; third, the mediated factor by affective commitment (AC) in the relationship

between PSS and MTL; and finally, the mediated factor by normative commitment (NC) in the relationship between PSS and MTL.

2 LITERATURE REVIEW

2.1 *Perceived Supervisor Support*

Supervisor support is linked to supervisor-employee interaction, and research demonstrates that when supervisors provide support, employees are more likely to respond with good attitudes and actions (Eisenberger, Malone & Presson, 2016). According to Tracy and Tews (2005), managers can convey clear signals about the importance of training and development progress in the workplace that encourages employee development. Thus, the following hypothesis (H1) is proposed:

(H1): PSS has a positive effect on MTL

2.2 *Perceived Organizational Support*

Eisenberger, Huntington, Hutchison & Soua (1986) define organizational support as knowing and discussing the employees' contributions to organizations. POS may look remote in comparison to supervision assistance, yet it is the foundation for PSS since it provides organizational structures, resources, and a climate for training (Zumrah, 2015). Based on this, the following hypothesis (H2) is proposed:

(H2): The positive relationship between PSS and MTL will be mediated by POS

2.3 *Affective Commitment*

Meyer & Allen (1991) propose that organizational commitment has three components: affective, continuance, and normative. Because reciprocal norms shape both kinds of involvement and are influenced by shared responsibility perspectives, not the benefit-cost, this research focuses on AC and NC (Meyer & Allen, 1997). The identification of a person's relative qualities and involvement in a certain organization is referred to as AC. Employees who have a high level of AC will stay with the company because they want to (Meyer & Allen, 1991). If supervisors create support systems (resulting in a higher impression of PSS), employees develop more AC (Bulut and Culha, 2010). Hence, the following hypothesis (H3) is proposed:

(H3): The positive relationship between PSS and MTL will be mediated by AC.

2.4 *Normative Commitment*

NC reflects the need to continue working. Employees who have a strong NC continue with the company because they believe it is necessary (Meyer & Allen, 1991). Employees are more likely to comply with regulatory duties and, as a result, are keen on attending training and development programs when their supervisor works as a support broker, which means more supervisor support (Mylona & Mikhail, 2019). Thus, the following hypothesis (H4) is proposed:

(H4): The positive relationship between PSS and MTL will be mediated by NC.

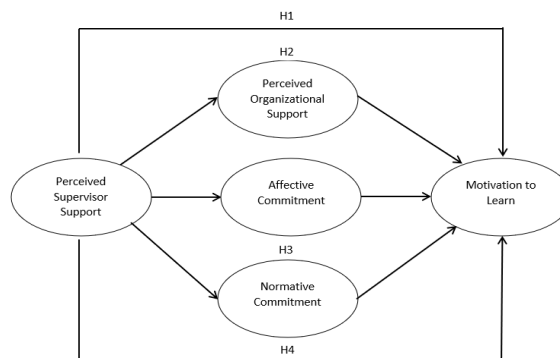


Figure 1. Conceptual Model

3 RESEARCH METHOD

This research is a cross-sectional research in which sample data was obtained in a single phase. An online survey was used in this research. The dimensions employed were well-established in the literature, creating criteria for the scaling's reliability and structure's validity. The influence of latent variables was investigated using quantitative analysis and a structural equation modeling (SEM) technique. Data from the questionnaire was processed in Microsoft Office Excel, SPSS 25, and Lisrel 8.80.

A total of 38 derived indicators were used to measure the five structures of this research (PSS, POS, AC, NC, and MTL). All items were graded on a six-point Likert scale, and all measures were translated into Indonesian. In addition, the questionnaire was also pre-tested. However, candidates for state civil servants (CASN) and contract workers were excluded from the research. This research used probability sampling and a total of 367 useable responses collected from employees of the Supreme Audit Board in Indonesia.

PSS was calculated using three elements adapted from the work of Rhoades et al. (2001). POS was measured using five items from the Survey of Perceived Organizational Support (SPOS) by Rhoades, Eisenberger & Armeli (2001). AC was measured using the six-item scale developed by Meyer & Allen (2004). To assess NC, the six-item scale developed by Meyer & Allen (2004) was used. The twelve components borrowed from Noe & Wilk (1993) were used to assess MTL.

4 RESULTS AND DISCUSSION

The respondents consist of 214 men and 153 women. According to respondents, 214 people have a diploma or bachelor's degree, and 153 people have a master's degree or above. Additionally, 334 employees have more than six years of working experience.

Figure 2 presents the results of SEM t-value path output and suggests that MTL has a direct effect, positively but not significantly correlated with PSS (t-value = 1.60, $\beta = 0.17$). A positive but not significant relationship between PSS and MTL does not support H1. Figure 2 demonstrates that MTL has a direct effect, significantly and positively correlated with POS (t-value = 2.22, $\beta = 0.17$), AC (t-value = 3.41, $\beta = 0.25$), and NC (t-value = 2.21, $\beta = 0.16$). The model fit is good, $p \leq 0.05$, RMSEA = 0.069, NFI = 0.93, CFI = 0.96. PSS and MTL are mediated by POS, AC, and NC, and the paths are also significant. The findings in table 1 support H2, H3, and H4. According to the findings, the relationship between PSS and MTL is fully mediated by POS, AC, and NC.

Table 1 Total Effect Calculation for Mediation Effects

Mediation Path	Indirect Effect	Direct Effect	Results
PSS-POS-MTL	0.284	0.17	POS mediated relationship between PSS and MTL
PSS-AC-MTL	0.315	0.17	AC mediated relationship between PSS and MTL
PSS- NC- MTL	0.258	0.17	NC mediated relationship between PSS and MTL

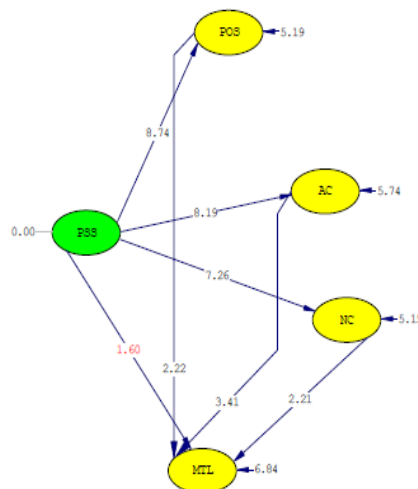


Figure 2. T-value Output

POS, AC, and NC are essential in the relationship between PSS and MTL because a supervisor is significant in forming their employees' views that their workplace produces a supportive atmosphere in the context of organizational support and limited finances. As a result, leaders must be able to boost employee motivation. Employees who want to continue working are more likely to attend training and development programs. Employees view supervisors' support as a kind of appreciation for their long contributions, and this supportive environment sets in motion a social exchange and signaling process in which employees feel want to, committed to, and required to return the favor to the organization.

5 CONCLUSIONS

This research shows that recognition from supervisors, opportunities to perform new tasks in an organization, and encouragement to employees can help to boost learning motivation. Employees' positive attitudes toward improving technical knowledge and taking the initiative to attend training in order to learn new things demonstrate that they are motivated not only to improve their knowledge or skills, but also because they believe that the training has become vital for increasing technical knowledge, practically tied to employment, as well as in their professional lives. Employees assume that if they receive training, their knowledge, abilities, and performance will improve because the training results will have an impact not only on growing knowledge but also on career advancement.

REFERENCES

- Badan Pemeriksa Keuangan Republik Indonesia. (2020). Laporan Kinerja Tahun 2019. Jakarta: Badan Pemeriksa Keuangan.
- Bell, B. S., Tannenbaum, S. I., Ford, J. K., Noe, R. A., & Kraiger, K. (2017). 100 years of training and development research: What we know and where we should go. *Journal of Applied Psychology*, 102 (3), 305-323.
- Bulut, C., & Culha, O. (2010). The effects of organizational training on organizational commitment. *International journal of training and development*, 14(4), 309-322.
- Cropanzano, R. & Mitchell, M. S. (2005). Social exchange theory: An interdisciplinary review. *Journal of Management*: 31(6), 874–900. doi:10.1177/0149206305279602
- Eisenberger, R., Huntington, R., Hutchison, S., & Sowa, D. (1986). Perceived organizational support. *Journal of Applied Psychology*: 71(3), pg.500–507. doi:10.1037/0021-9010.71.3.500
- Eisenberger, R., Stinglhamer, F., Vandenberghe, C., Sucharski, I. L., & Rhoades, L. (2002). Perceived supervisor support: Contributions to perceived organizational support and employee retention. *Journal of Applied Psychology*: 87 (3), 565. doi:10.1037//0021-9010.87.3.565
- Eisenberger, R., Malone, G. P., & Presson, W. D. (2016). Optimizing perceived organizational support to enhance employee engagement (pp. 2–22). Special reports and expert views. Society for Human Resource Management and Society for Industrial and Organizational Psychology. Retrieved from <http://www.shrm.org/hr-today/trends-and-forecasting/special-reports-and-expertviews/Documents/SHRMSIOP%20Perceived%20Organizational%20Support.pdf>
- Meyer, J. P., & Allen, J. N. (1991). A three-component conceptualization of organizational commitment. *Human Resource Management Review*: 1(1), 61–89. doi:10.1016/1053-4822(91)90011-Z
- Meyer, J. P., & Allen, J. N. (1997). Commitment in the workplace: Theory, research and application (advanced topics in organizational behaviour). Thousand Oaks, CA: Sage Publications
- Meyer, J. P., & Allen, N. J. (2004). TCM employee commitment survey academic users guide 2004. London, Ontario, Canada: The University of Western Ontario, Department of Psychology.
- Mylona, E., & Mihail, D. (2020). Exploring Public Employees' Motivation to Learn and Develop in Turbulent Times. The Role of Perceived Support and Organizational Commitment. *International Journal of Public Administration*: 43(16),1366–1375. <https://doi.org/10.1080/01900692.2019.1669174>
- Rhoades, L., Eisenberger, R., & Arneli, S. (2001). Affective Commitment to the Organization: The Contribution of Perceived Organizational Support. *Journal of Applied Psychology*: Vol.86, No.5, 825-836. DOI: 10.1037//0021-9010.86.5.825
- Towler, A., Watson, A., & Surface, E. A. (2014). Signalling the importance of training. *Journal of Managerial Psychology*: 29(7), 829–849. doi:10.1108/JMP-03-2012-0092
- Tracey, J.B. and Tews, M.J. (2005). Construct validity of a general training climate scale. *Organizational Research Methods*, Vol. 8, pp. 353-74.
- Vermeeren, B. (2017). Influencing public sector performance: Studying the impact of ability-, motivation-and opportunity-enhancing human resources practices on various performance outcomes in the public sector. *International Review of Administrative Sciences*: 83(4), 717–737. doi:10.1177/0020852315591642.
- Zumrah, A. R. (2015). Examining the relationship between perceived organizational support, transfer of training and service quality in the Malaysian public sector. *European Journal of Training and Development*.

The Mediating Role of Green Skepticism in the Influence of Greenwashing Perception on Green Purchasing Intentions

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ABSTRACT: With consumers increasing awareness of environmental problems, green marketing is becoming an essential approach for firms to gain a competitive advantage. However, many companies mislead consumers by doing greenwashing. This study aims at finding out whether and how consumers' greenwashing perceptions influence their green purchasing intentions by integrating the mediating role of green word-of-mouth (WOM) and green skepticism, and the moderating role of green concern, based on the attitude-behavior context. The study also focuses on Gen Y who purchased and consumed bottled mineral water as it is one of the most produced wastes in Indonesia. The results show that *green skepticism* did not mediate the relationship between greenwashing perception and green purchasing intentions. In addition, green concern did not moderate greenwashing perception on green purchasing intentions.

1 INTRODUCTION

Worsening environmental changes increase public awareness of the environment. One of the community's contributions in minimizing environmental damage is to pay attention to the goods they consume. A total of 66% of consumers worldwide offer to pay more for environmentally friendly products, this figure even rises to 72% in Generation Y respondents (Nielsen, 2015). This is enough to prove that Generation Y has a high regard for the environment, and opens a potential green market or "green market" for companies.

Previous study by Zhang et al. (2018) shows that greenwashing perception affects green purchasing intentions, and the relationship is strengthened by the presence of green WOM. However, these studies are not necessarily in accordance with consumer behavior in Indonesia because a person's attitudes and behavior also depend on many contextual factors (Feldmann & Hamm, 2015). Other study states that consumer perceptions of greenwashing may foster consumer skepticism towards environmentally friendly products. Therefore, this study is conducted to fill this gap. This study aims to determine the effect of greenwashing perceptions on green purchasing intentions by integrating green word-of-mouth and green skepticism as a mediator, and green concern as a moderator.

2 LITERATURE REVIEW

2.1 Consumer Behavior

Consumer behavior describes how a person makes decisions in using their resources (money, time, effort) on goods offered by sellers (Schiffman & Wisenblit, 2015). Consumer behavior is influenced by cultural, social, and personal factors. In addition, consumer buying decisions are also influenced by core values, namely the belief system that underlies attitudes and behavior (Kotler & Keller, 2011).

2.2 Attitude-behavior-context Theory

This theory shows that consumer behavior is the result of interrelated attitudes and contextual factors (Dhir et al., 2021). People's attitudes and values towards the environment may not be enough to explain their behavior toward the environment. Therefore, it is important to consider what contextual factors can inhibit or encourage a consumer's environmentally friendly behavior (Zhang et al., 2018).

2.3 Greenwashing Perception

Greenwashing perception is consumer awareness of increasing company communication about the environment accompanied by a lack of action. This can definitely prevent consumers from buying the company's products. Consumers who are aware of greenwashing practices will be skeptical of companies in general because many companies claim to protect the environment, but this is not reflected in the company's actions and performance (Nyilasy et al., 2014)).

2.4 Green WOM

Green WOM is the extent to which customers will inform friends, relatives, and colleagues about a product or brand that has a positive environmental message. The practice of greenwashing will actually result in a negative WOM (Chen et al., 2014). Someone who is involved or active in an issue is likely to be more active to engage in active communication (Allen & Spialek, 2018).

2.5 Green Concern

Green concern is the extent to which an individual is involved in environmental issues. Consumers who have a high level of green concern will tend to have a strong sense of responsibility for the environment and adopt environmentally friendly behavior. Therefore, green concern has a strong influence on green purchasing intention (Goh & Balaji, 2016)

2.6 Green Skepticism

Green skepticism is a situation in which consumers doubt or do not believe the environmentally friendly claims made by a company. Therefore, this skepticism of environmental performance can hinder consumers' purchase intentions (Goh & Balaji, 2016). Someone with a high environmental concern level tends to be more skeptical of environmental claims (Farooq & Wicaksono, 2021).

2.7 Green Purchasing Intentions

Green purchasing intentions refer to the possibility of consumers buying a product based on their view of the environment, and represent the extent to which consumers are ready to buy products and services from companies that have a reputation for being environmentally friendly (Zhang et al., 2018). If consumers find that the actions taken by a company are not in accordance with what they inform, they will become skeptical, and then change their opinions and responses to the company's products (Zhang et al., 2018), and of course will result in decreased product purchase intention (Nyilasy et al., 2014).

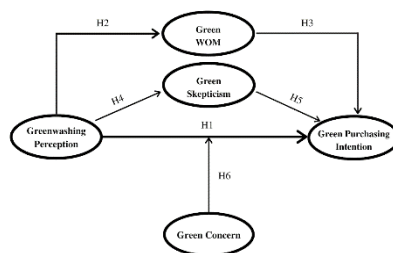


Figure 1. Conceptual Model.

3 RESEARCH METHOD

3.1 Sample & Procedure

The data was collected using an online survey from 127 valid respondents. Data were collected using purposive sampling with the criteria as follows: (1) Millennial Indonesian Citizens (born in 1981-1996); (2) Have purchased and consumed Bottled Drinking Water (AMDK). First, participants filled out screening questions and then proceeded with the main questionnaires.

3.2 Measures & Statistical Analysis

The questionnaire measured greenwashing perception, green purchasing intentions, green WOM, green skepticism, and green concern. Respondents were asked to answer all the measurement items using a 5-point Likert scale. The obtained data was analyzed using SEM-PLS to test the measurement model and structural model.

4 RESULTS AND DISCUSSIONS

Table 1. Results

	Paths	Original Sample	T Statistics	P Value (Model Comparison)	Direct Effect
H1	Greenwashing Perception → Green Purchasing Intentions	0.012	0.163	0.871	Rejected
H2	Greenwashing Perception → Green WOM	-0.655	12.382	0.000	Accepted
H3	Green WOM → Green Purchasing Intentions	0.838	12.432	0.000	Accepted
H4	Greenwashing Perceptions → Green Skepticism	0.612	11.054	0.000	Accepted
H5	Green Skepticism → Green Purchasing Intentions	-0.003	0.042	0.967	Rejected
H6	Moderating Effect (GWP*GC)	-0.025	0.435	0.664	Rejected

Surprisingly, greenwashing perception did not affect green purchasing intentions. This shows that attitude did not necessarily become a behavior. Green WOM was proven to mediate and strengthen the relationship between greenwashing perception and green purchasing intention. As the results were very significant, companies could develop marketing strategies that could generate and strengthen positive green WOM, thus it could increase green purchasing intentions. Although greenwashing perception did not affect green purchasing intentions, greenwashing perception did affect green skepticism, in which the higher consumers' perceptions of greenwashing practices, the higher their skepticism towards environmentally friendly products.

In addition, green skepticism did not affect green purchasing intentions. This shows that green skepticism did not mediate the relationship between greenwashing perception and green purchasing intentions. Green concern also did not moderate the relationship between greenwashing perception and green purchasing intentions. This might be due to the lack of awareness of Indonesian millennials about the environment, so that their concern for the environment was not embedded in their minds.

5 CONCLUSIONS

Green skepticism does not affect green purchasing intentions and did not moderate the relationship between greenwashing perceptions and green purchasing intentions. This shows that although consumers had high skepticism, it did not reduce their purchase intentions for environmentally friendly products. However, green WOM had been shown to strengthen the relationship between greenwashing perceptions and green purchasing intentions.

REFERENCES

- Allen, M. W., & Spialek, M. L. (2018). Young millennials, environmental orientation, food company sustainability, and green word-of-mouth recommendations. *Journal of Food Products Marketing*, 24(7), 803–829. <https://doi.org/10.1080/10454446.2017.1415827>
- Chen, Y.-S., Lin, C.-L., & Chang, C.-H. (2014). The influence of greenwash on green word-of-mouth (green WOM): the mediation effects of green perceived quality and green satisfaction. *Quality & Quantity*, 48(5), 2411–2425. <https://doi.org/10.1007/s11135-013-9898-1>

- Dhir, A., Sadiq, M., Talwar, S., Sakashita, M., & Kaur, P. (2021). Why do retail consumers buy green apparel? A knowledge-attitude-behaviour-context perspective. *Journal of Retailing and Consumer Services*, 59, 102398. <https://doi.org/10.1016/j.jretconser.2020.102398>
- Farooq, Y., & Wicaksono, H. (2021). Advancing on the analysis of causes and consequences of green skepticism. *Journal of Cleaner Production*, 320, 128927. <https://doi.org/10.1016/j.jclepro.2021.128927>
- Feldmann, C., & Hamm, U. (2015). Consumers' perceptions and preferences for local food: A review. *Food Quality and Preference*, 40, 152–164. <https://doi.org/10.1016/j.foodqual.2014.09.014>
- Goh, S. K., & Balaji, M. S. (2016). Linking green skepticism to green purchase behavior. *Journal of Cleaner Production*, 131, 629–638. <https://doi.org/10.1016/j.jclepro.2016.04.122>
- Kotler, P., & Keller, K. (2011). *Marketing Management*. Prentice Hall PTR.
- Nielsen, E. M. (2015). *Understanding Generation Y and Their Buying Power*. LinkedIn. <https://www.linkedin.com/pulse/understanding-generation-y-buying-power-egil-moller-nielsen>
- Nyilasy, G., Gangadharbatla, H., & Paladino, A. (2014). Perceived Greenwashing: The Interactive Effects of Green Advertising and Corporate Environmental Performance on Consumer Reactions. *Journal of Business Ethics*, 125(4), 693–707. <https://doi.org/10.1007/s10551-013-1944-3>
- Schiffman, L. G., & Wisenblit, J. (2015). *Consumer Behavior*. Pearson.
- Zhang, L., Li, D., Cao, C., & Huang, S. (2018). The influence of greenwashing perception on green purchasing intentions: The mediating role of green word-of-mouth and moderating role of green concern. *Journal of Cleaner Production*, 187, 740–750. <https://doi.org/10.1016/j.jclepro.2018.03.201>

The Determinants of Corporate Leverage and Speed of Leverage Adjustment in Indonesia

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ABSTRACT: This study aims at analyzing internal factors that affect firms' leverage levels such as size, tangibility, profitability, growth, and cost of debt and speed of adjustment leverage level for both overleveraged firms and underleveraged firms listed on the Indonesia Stock Exchange in 2012-2020. This study employs both static and dynamic panel estimation. This study confirmed a relationship between leverage and size, tangibility, profitability, growth, dan cost of debt. Furthermore, it also found that underleveraged firms had a higher speed of leverage adjustment than overleveraged firms.

1 INTRODUCTION

Firms will adjust leverage to its optimal level. This adjustment will fetch transaction costs that affect the speed of corporate leverage adjustment. Korajczyk & Levy (2003) and Faulkender et al. (2012) investigated factors affecting leverage speed of adjustment and found that transaction cost would impact firms. Firms will adjust their leverage level based on their characteristics prior to the managerial decision to raise or lower their leverage level to have an optimal capital structure with a lower cost. Capital structure decisions are related to any projects or investments that firms will implement to have an internal rate of return higher than their cost of capital. 53% of firms in Indonesia are underleveraged that they have lower leverage than their target. Underleverage firms would have lower financial distress risk, leading to new debt issuance to adjust leverage to its optimal level. Meanwhile, overleverage firms would have to adjust their leverage by paying their liabilities, especially when the interest rate is high. The firms' growth rate is uncertain in the long-term that firms must determine optimum leverage level to avoid financial distress risk of new debts and have tax shield benefit that would be received by firms if using debt. This study explains the determinants of leverage and operational and financial risk that will impact the speed of leverage adjustment of overleverage and underleveraged firms. The result will answer the prediction done by Touil & Mamoghli, (2020) and Dufour et al. (2018) that overleverage firms will have a higher speed of leverage adjustment than underleveraged firms.

2 THEORETICAL DISCUSSION AND EMPIRICAL HYPOTHESES

This study followed two main capital structure theories: the pecking-order theory and the trade-off theory. Firm size can be a proxy for the probability of bankruptcy. The larger firms tend to be more diversified and have lower bankruptcy risk than smaller firms since big firms could negotiate with creditors to gain more leverage that benefits firms (Eriotis et al., 2007)

H1: Firm size is positively related to leverage

From a pecking-order perspective, firms will tend to use retained earnings rather than external financing using debt due to asymmetric information cost. From a trade-off theory perspective, firms will have tax shield benefits for using more leverage.

H2: Profitability is negatively related to leverage

Managers have a possibility of shifting the risk of risky investment to bondholders in agency theory (Jensen & Meckling, 1976). Trade-off theory also explains that when firms seek more debt, creditors will appreciate more if they have more tangible assets that could lower bankruptcy risk, and firms can get lower interest rates (Frank & Goyal, 2003).

H3: Tangibility is positively related to leverage

Company growth will increase the risk of financial distress (Frank & Goyal, 2008). Myers (1977) found that a firm's growth has a negative impact with leverage that this happens because companies with intangible growth prospects will avoid using leverage to minimize the risks resulting from underinvestment problems associated with high risks of financial distress.

H4: Growth is negatively related to leverage

According to market timing theory, companies will not issue new debt if the interest rate is high; and will buy back bonds when the interest rate is low. In trade-off theory, it is assumed that the company has target leverage in which the company will adjust the level of leverage based on the net benefit leverage resulting from the difference between tax shield and bankruptcy risk.

H5: Cost of debt is negatively related to leverage

Trade-off theory explains that firms will adjust their leverage to its optimal level. Flannery & Rangan (2006) and Byoun (2008) have studied the capital structure speed of adjustment study. According to Byoun (2008), the speed of leverage adjustment will be higher if firms can close the gap between leverage and target leverage. To calculate the speed of leverage adjustment to its target, the Partial Adjustment Model was used, where the coefficient is the speed of adjustment coefficient. Then the coefficient was transformed into half-lives. According to Iliev & Welch (2011), Half-life is the time that it takes a firm to adjust back one-half the distance to its target leverage after a one unit shock to the error term.

3 METHODOLOGY

This study obtained data from the Indonesia Stock Exchange from 2005-2020. The sampling was stopped after 2020 due to the data availability from Reuters Datastream. Financial and utility firms were excluded due to different reporting standards. Firms were also taken out as samples if a large amount of data was missing. This study consisted of 605 firms with 4,153 firm-year observations.

The model to investigate the determinants of leverage and speed of leverage adjustment is as follows;

$$Lev_{i,t} = (1 - \beta)Lev_{i,t-1} + \beta Prof_{i,t-1} + \beta Tang_{i,t-1} + \beta Size_{i,t-1} + \beta Growth_{i,t-1} + \beta CoD_{i,t-1} + \varepsilon \quad (1)$$

This study used a static panel with Fixed Effects and dynamic panel techniques with GMM to test hypotheses in 3.1. According to Arellano & Bond (1991), GMM has advantages: (1) to control endogeneity, (2) to control the possibility of collinearity between variables, and (3) to resolve omitted variable problems resulting from control time-constant effect. This study used a system GMM estimator to mitigate bias-lagged independent variables. System GMM estimator is an appropriate tool for estimating leverage determinants through the GMM difference estimator (Serrasqueiro et al., 2020). Hansen's test used in the GMM estimator was aimed at testing the validity of the model, and Arellano-Bond (AR) test was aimed at testing the existence of first-order and second-order autocorrelation.

Table 1. Variable definition and the expected sign for each corresponding theory

Variable	Definition	Expected Sign	Corresponding Theories
Dependent			
Levi,t	Total long-term debt divided by total asset in year t		
Levi,t-1	Total long-term debt divided by total asset in year t -1		
Independent			

Prof	Total operating cash flow divided by total asset in year t-1	(+) (-)	Trade-off Theory Pecking order Theory
Tang	Total fixed-asset divided by total asset in year t-1	(+) (-)	Trade-off Theory Pecking order Theory
Size	Natural logarithm total asset in year t-1	(+) (-)	Trade-off Theory Pecking order Theory
Growth	Natural logarithm total asset in year t minus natural logarithm total asset in year t -1 divided by natural logarithm total asset in year t -1	(-)	Trade-off Theory
CoD	After-tax weighted average cost of debt in year t-1	(-)	Trade-off Theory

4 RESULTS AND DISCUSSION

Table 2. Regression results

Variable	Overleverage		Underleverage	
	Fixed Effect	GMM	Fixed Effect	GMM
Lagged Leverage	0.5759 (0.000)***	0.8193 (0.000)***	0.4682 (0.000)***	0.619 (0.000)***
Profitability	-0.3614 (0.000)***	-0.1844 (0.041)**	-0.0611 -0.146	-0.0559 -0.263
Tangibility	0.2002 (0.063)*	0.0003 -0.989	0.1309 (0.008)***	0.0797 -0.21
Size	-0.1076 (0.012)**	0.0033 -0.667	-0.0148 -0.303	0.0362 (0.007)***
Growth	-0.1488 (0.000)***	-0.192 (0.000)***	-0.0185 -0.306	-0.179 (0.000)***
Cost of Debt	0.192 -0.528	0.9686 (0.005)***	-0.4942 (0.014)**	-0.6974 (0.008)***
F Stat	(0.000)***	(0.000)***	(0.000)***	(0.000)***
R ²	0.5639		0.3229	
Prob AR(1)		0.008		0
Prob AR(2)		0.125		0.221
Hansen Test		0.498		0.074

*, **, *** indicates significance at the 10%, 5%, and 1% level respectively

Table 2 shows the results on determinants of corporate leverage and speed of leverage adjustment. This study employ static and dynamic panels in order to overcome the endogeneity problem. The results found that profitability had a negative relationship with leverage for overleverage and underleveraged firms, meaning firms would reduce leverage when firms' profitability increases. A similar result was also found by Albanez & Schiozer (2021) and predicted by pecking order theory that accumulated profit will increase a firm's retained earnings, so firms would use internal funding before raising external funding. As a result, firms would avoid information asymmetries by raising external funding through new debt and equities.

Furthermore, it was found that tangibility has a positive relationship to leverage for overleveraged and underleveraged firms. In agency theory, firms will have more funding from creditors when firms have more tangible assets so that firm will have lower financial distress risk and a higher salvage value of assets. This result is also backed by the trade-off theory. This study found that underleveraged firms have lower bankruptcy risk than overleveraged firms since underleveraged firms could negotiate with creditors to gain more leverage that benefits firms. This study found that the firm's growth has a negative impact on leverage. This negative relationship happens because companies with intangible growth prospects will avoid using leverage to minimize the risks resulting from underinvestment problems associated with high risks of financial distress. The positive and significant relationship between the cost of debt and leverage in overleverage indicates that firms would enjoy a tax shield when increasing leverage.

This tax shield happens because firms would pay more interest costs. However, this positive relationship also makes firms increase their default risk.

This study calculated the time needed by the overleveraged and underleveraged firms in adjusting their leverage to its target level. According to Fixed Effect regression in Table 2, the speed of adjustment for overleveraged firms was about 0.4241; the speed of adjustment for underleveraged firms was about 0.5318. Then, the speed of adjustment was calculated using GMM that found the speed for overleveraged firms was about 0.1807 and for underleverage firms was about 0.381. The coefficient numbers of lagged leverage were then converted into year using half-live calculation ($\log(0.5)/\log(\beta)$). According to Fixed Effect estimator, overleveraged firms need 1.26 years for adjusting their leverage to its target, meanwhile, the underleveraged firms need 0.91 years. In addition, according to GMM estimator, overleveraged firms need 3.48 years whereas underleveraged firms need 1.45 years to adjust their leverage to its target. Thus, based on Fixed Effect and GMM estimator, underleveraged firms adjust their leverage faster than overleveraged firms.

5 CONCLUSION

By definition, variation in leverage adjustment speeds must reflect something about the costs and benefits of moving toward target leverage. This study investigated the determinants of leverage for non-financial firms listed on the Indonesia Stock Exchange in 2012-2020. This study found that the determinants of leverage are better explained by pecking order theory. It was also found that underleveraged firms adjust leverage faster than overleverage firms by 2.04 year

REFERENCES

- Albanez, T., & Schiozer, R. (2021). The signaling role of covenants and the speed of capital structure adjustment under poor creditor rights: Evidence from domestically and cross-listed firms in Brazil. *Journal of Multinational Financial Management*, xxxx, 100704. <https://doi.org/10.1016/j.mulfin.2021.100704>
- Arellano, M., & Bond, S. (1991). Some tests of specification for panel data: monte carlo evidence and an application to employment equations. *Review of Economic Studies*, 58(2), 277–297. <https://doi.org/10.2307/2297968>
- Byoun, S. (2008). How and when do firms adjust their capital structures toward targets? *Journal of Finance*, 63(6), 3069–3096. <https://doi.org/10.1111/j.1540-6261.2008.01421.x>
- Dufour, D., Luu, P., & Teller, P. (2018). The influence of cash flow on the speed of adjustment to the optimal capital structure. *Research in International Business and Finance*, 45, 62–71. <https://doi.org/10.1016/J.RIBAF.2017.07.132>
- Eriotis, N., Vasilou, D., & Ventoura-Neokosmidi, Z. (2007). How firm characteristics affect capital structure: an empirical study. *Managerial Finance*, 33(5), 321–331. <https://doi.org/10.1108/03074350710739605>
- Faulkender, M., Flannery, M. J., Hankins, K. W., & Smith, J. M. (2012). Cash flows and leverage adjustments. *Journal of Financial Economics*, 103(3), 632–646. <https://doi.org/10.1016/J.JFINECO.2011.10.013>
- Flannery, M. J., & Rangan, K. P. (2006). Partial adjustment toward target capital structures. *Journal of Financial Economics*, 79(3), 469–506. <https://doi.org/10.1016/j.jfineco.2005.03.004>
- Frank, M. Z., & Goyal, V. K. (2003). Capital Structure Decisions. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.396020>
- Frank, M. Z., & Goyal, V. K. (2008). Trade-Off and Pecking Order Theories of Debt. In *Handbook of Empirical Corporate Finance SET* (Vol. 1, Issue 06). Woodhead Publishing Limited. <https://doi.org/10.1016/B978-0-444-53265-7.50004-4>
- Iliev, P., & Welch, I. (2011). Reconciling Estimates of the Speed of Adjustment of Leverage Ratios. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.1542691>
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics*, 3(4), 305–360. [https://doi.org/10.1016/0304-405X\(76\)90026-X](https://doi.org/10.1016/0304-405X(76)90026-X)
- Korajczyk, R. A., & Levy, A. (2003). Capital structure choice: macroeconomic conditions and financial constraints. *Journal of Financial Economics*, 68(1), 75–109. [https://doi.org/10.1016/S0304-405X\(02\)00249-0](https://doi.org/10.1016/S0304-405X(02)00249-0)
- Myers, S. C. (1977). Determinants of corporate borrowing. *Journal of Financial Economics*, 5(2), 147–175. [https://doi.org/10.1016/0304-405X\(77\)90015-0](https://doi.org/10.1016/0304-405X(77)90015-0)
- Serrasqueiro, Z., Matias, F., & Diéguez-Soto, J. (2020). How do Spanish unlisted family firms rebalance their capital structures? *Journal of Family Business Management*. <https://doi.org/10.1108/JFBM-02-2020-0012>
- Touil, M., & Mamoghli, C. (2020). Institutional environment and determinants of adjustment speed to the target capital structure in the MENA region. *Borsa Istanbul Review*, 20(2), 121–143. <https://doi.org/10.1016/J.BIR.2019.12.003>

The Role of Brand Love and Customer Engagement in Building Customer Trust, Customer Loyalty, and Word of Mouth: The Case of Local Fashion Brands

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ABSTRACT: Customer engagement has rapidly gained traction in customer-brand literatures. However, there are no research findings investigating the influence of brand love to customer engagement in building customer trust, customer loyalty, and word of mouth in local fashion apparel context. This study tests the effect of brand love on customer engagement that will affect customer trust, customer loyalty, and word of mouth. The data collection was carried out through the questionnaire to 211 customers of local apparel fashion brands. Structural Equation Modeling (SEM) was used to test the hypothesis. The findings indicate that brand love influence customer engagement in building customer loyalty, customer trust, and word of mouth. However, word of mouth was not influenced directly by customer loyalty and trust. The finding could help deepen the understanding of the customer engagement and be useful for the fashion practitioners to be more effective in choosing strategies.

1 INTRODUCTION

Customer engagement is a must in building essential value for an organization (Chang et al., 2020). 80% of business people wants to create customer engagement to increase the customer support and trust (Pansari & Kumar, 2017). Customer engagement has a potential to affect customer behavior (Gambetti & Graffigna, 2010). Therefore, customer engagement is a dawning field, which needs to be explored (Kumar, 2015). However, empirical studies that explore relationships among brand love, customer engagement, customer trust, customer loyalty, and word of mouth in the same framework has not been found, even less in the local fashion apparel context. Fashion has now evolved into a lifestyle necessity. Apparel is not only recognized as a cloth worn for the body, but now it reflects on one's identity and symbolizes the status and the personality of the person. Therefore, customers are more likely to be careful to choose apparel brands and engage with it as they refine their appearances and identity (Khare, 2014).

This study aims at determining the correlation between brand love and customer engagement, which influences customer trust, customer loyalty, and word of mouth in local apparel fashion brands. This study contributes to being a reference and input for research that will be done further related to customer engagement. The study is also expected to be useful for practitioners in carrying out their business in fashion apparel industry, and it hopes to provide insights in the selection of strategies that will intensify customer loyalty, customer trust, and word of mouth in the brands, which will add larger market share and revenue to the company.

2 LITERATURE REVIEW

2.1 *Customer Engagement*

Customer engagement has been defined in various ways by many scholars. Customer engagement is considered the level of consumer's relationship with emotional and behavioral interaction towards particular brand (Hollebeek, 2011). Customer engagement is a personal connection of consumers with a specific brand shown in cognitive and affective act and behavior outside the buying situation. Hence, reciprocation and interaction become requirements for customer engagement (Islam & Rahman, 2016; So et al., 2012).

2.2 *Brand Love*

Love is a person's attitude towards a particular thing or person involving a tendency to think, feel, and behave in a certain way. Love towards brands indicates a level of desired emotional love owned by a person with a particular brand. Brand love is the degree of passion and affection owned by customers who are satisfied with a specific brand (Carroll & Ahuvia, 2006). Thus, the following hypothesis is proposed:

H1: Brand love positively influence customer engagement.

2.3 *Word of mouth*

Word of mouth (WOM) is informal communication between two people with the intensity to carry out non-commercial communication about brands, products, organizations, or services (Taheri et al., 2021). Word of mouth can influence consumer's decision making (Siqueira et al., 2019) and it shows the interpersonal influence between the sender and the receiver, shaping the attitude of the receiver either in a negative or a positive attitude (Sweeney et al., 2008). A customer with a high level of commitment will give a positive word of mouth and as a representative of the brand (de Matos & Rossi, 2008). A word of mouth that is beneficial to the brand includes having a fun relationship or new experience; recommending to other people; and even showcasing the product or service (Vivek et al., 2012). Hence, the following hypothesis is proposed:

H2: Customer engagement positively influence word of mouth

2.4 *Customer Loyalty*

Customer loyalty indicates a behavior of promotion and repeat purchases (Kim et al., 2016). Currently, many researchers are investigating a direct impact of some relationships on loyalty (Chae et al., 2015). The relationship process is due to its repetitive nature, explaining that some relationships are the outcome of customer engagement and also the outcome of customer engagement antecedents. Besides that, a different process of customer engagement can be observed in new and old customers as an add to a model of customer engagement to create and maintain customer loyalty on customers of the brand that they already have (Bowden, 2009). When customer engagement gives a useful experience to consumer that covers relationship, emotional, and behavioral aspect (Dwivedi, 2015) it will be resulting in the bond development where the consumer commits to being loyal to the brand (Khan et al., 2015). Hence, the following hypothesis is proposed:

H3: Customer engagement positively influence customer loyalty.

H4: Customer loyalty positively influence word of mouth

2.5 *Customer Trust*

Trust and commitment are the main constructs in the current marketing relationship (Youssef et al., 2018). Trust occurs when one party has confidence in the reliability and integrity of another party (Mombeuil & Fotiadis, 2017). Customer trust is the commitment and personal bond between customers and brands (Hes et al., 2017). Customer trust enable organizations to take fundamental risks to new business innovations, productivity, and a successful relationship (Choi et al., 2007). Consumers with a high level of trust will build a strong relationship with the brand. The theory of social exchange stated that consumers tend to interact with producers that they trust (Cheng et al., 2017). Hence, the following hypothesis is proposed:

H5: Customer engagement positively influence customer trust.

H6: Customer trust positively influence customer loyalty.

H7: Customer trust positively influence word of mouth.

3 METHODOLOGY

3.1 *Sample and data collection*

This research was administered in Indonesia using a questionnaire-based survey. A sample of 211 millennials who were born from 1979 to 2000 was selected because they are the majority of global customers by a percentage reaching 40% (The state of fashion, 2019). The object of this study is

Indonesian casual apparel fashion brands. Before the respondents participated in this survey, they were asked whether they had bought an apparel product from a local Indonesian brand in the previous 18 months or not. Only respondents who have bought a product were taken up for the study. The survey was conducted for one month. 211 questionnaires were used for this research.

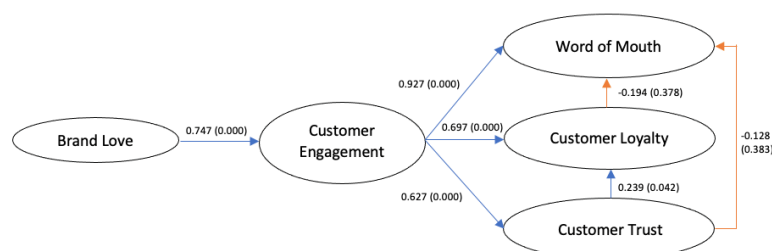


Figure 1. The proposed research models

3.2 Measurements and questionnaires

The questionnaires included three sections. The first section contained questions about the respondents' preferences for apparel fashion brands and local apparel brands purchased in the last 18 months. The second section contained measurements of variables used for the study. The third section contained questions regarding the respondents' biographical information. All research constructs are measured based on measurements taken from previous studies by Islam & Rahman (2016), Li et al. (2020) and Siqueira et al. (2019) on a scale from 1 (strongly disagree) to 5 (strongly agree).

3.3 Data analysis

Analysis of Moment Structure (AMOS) was used in the data analysis included two parts. Firstly, after collecting the data, Confirmatory Factor Analysis (CFA) was used to examine how well the measured variables represented the constructs and to verify the goodness-of-fit (GOF) for the measurement model. Secondly, Structural Equation Modeling (SEM) was performed to empirically evaluate the relationship of brand love, customer engagement, customer loyalty, customer trust, word of mouth, and the mediating effect relationship.

4 RESULTS

4.1 Measurement model

Confirmatory Factor Analysis (CFA) with AMOS was used. Based on Hair et al. (2019), the research can be categorized as fit if they have at least one absolute fit index and one incremental fit index considered fit or marginal fit. The recommended fit of the model ranges as RMSEA \leq 0.08 and NFI \geq 0.90. The RMSEA was 0.057, categorized fit and the NFI was 0.887, considered marginal fit. Hence, the overall model used in this study is a good fit.

An indicator can be considered as valid if the standardized loading factor is greater than or equal to 0.5. Results propounded the deletion of five items which are 0.460, 0.458, 0.458, 0.487, and 0.446. Average Variance Extracted (AVE) and Construct Reliability (CR) were calculated to test the reliability of the variables. A variable can be categorized as reliable if the number of AVE \geq 0.5 and the CR \geq 0.7. Based on this criterion, all constructs except customer engagement passed the criterion because the AVE of customer engagement is 0.4. AVE is often regarded as too strict to delve into this issue further. Hence, reliability can be established through CR alone.

4.2 Structural model result

The structural model was conducted with Structural Equation Modeling (SEM) using Analysis of Moment Structure (AMOS). A hypothesis can be considered as supported when the P-Value is lower than or equal to 0.05. The result indicates that the hypotheses presented were supported, except H4 and H7. The results of structural model are presented in Table 1.

Table 1. Result of Structural Model

Hypothesis	Relationship	Coefficient	P-Value	Result
H1	Brand Love → Customer Engagement	0.747	0.000	Supported
H2	Customer Engagement → Word of Mouth	0.927	0.000	Supported
H3	Customer Engagement → Customer Loyalty	0.697	0.000	Supported
H4	Customer Loyalty → Word of Mouth	-0.194	0.378	Rejected
H5	Customer Engagement → Customer Trust	0.627	0.000	Supported
H6	Customer Trust → Customer Loyalty	0.239	0.042	Supported
H7	Customer Trust → Word of Mouth	-0.128	0.383	Rejected

5 CONCLUSION AND DISCUSSION

5.1 Theoretical implications

The results indicate that H1 is supported. Previous research by Junaid et al. (2019) also revealed the same results in the smartphone context. Customer engagement is an essential factor in local apparel fashion brands because customer engagement positively influences customer loyalty, customer trust, and word of mouth. Even though word of mouth was influenced by customer engagement, it was not influenced directly by customer loyalty and customer trust.

5.2 Managerial implications

First, local fashion brands need to have customers who love them because it will lead them to have an engagement with the brand, one way to achieve it is by giving products that make them happy and feel confident when they use it. Second, local fashion brands should have more focus on increasing the engagement with their customers, one way to achieve it is by making customers attracted to the brand by not only offering goods with great quality but also giving the shopping experience to the customers by paying attention to what the customer needs and letting them touch and try the apparels. Third, loyal customers are those who see the brand as their favorite choice over any other brand. Hence, the local apparel brand can offer a greater value compared with other brands. A value that pays attention to sustainability by using environmentally friendly materials.

A gesture of loyal customers is that they repeat their purchases. To achieve this, a brand can give points to customers by the time they reach a certain number of points they will get a special offer. Next, when a local brand has customers who are willing to spread positive thoughts about the brand, it will help the local brand gain market share. Hence, an apparel fashion brand could increase the use of their social media as a referral channel so it will be easier for customers to spread information about the brand to other people. Lastly, if a brand wants to have customers who are loyal to them, they should make the customers trust them. To achieve this, the brand could offer products of great quality and give three days guarantee for any claim about the product's quality.

5.3 Limitations and suggestions for future studies

This study collected the data of Indonesian casual apparel fashion brand customers. Hence, one of the limitations of this study is that it is limited to only one country. Future research may conduct a comparative study by doing it in other countries. The selection of respondents for this research is limited to millennials. The next study may conduct a study with broader types of respondents. 211 samples were used to collect data, and future research can consider larger sample sizes. The casual apparel brand category was used in this research. Hence, a different brand category could also be used in future research. This study does not investigate the mediating effect. Therefore, future research could study the mediating effect of customer engagement.

REFERENCES

- Islam, J.U. & Rahman, Z. (2016a). Examining The Effects of Brand Love and Brand Image on Customer Engagement: An Empirical Study of Fashion Apparel Brands. *Journal of Global Fashion Marketing*, 7(1), 45-59. <https://doi.org/10.1080/20932685.2015.1110041>

Factors in Mobile Game Ads on Youtube that Affect Users' Download Intention

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ABSTRACT: This research aims at gaining an in-depth understanding of the factors in mobile game ads on YouTube that affect users' download intention. The data were collected by conducting a focus group discussion. There were twelve participants in the discussion divided into two groups. The first group is YouTube users who have downloaded games because of ads, while the second group was the opposite. Three themes emerged. First, the factor that attracts users' attention, comedy. Second, the factor that increases users' download intention, challenges. However, it only applies to the first group. Third, the factor that reduces users' download intention, gameplay incompatibility. However, it only applies to the first group.

1 INTRODUCTION

The reasons for people to play mobile games are mostly to relieve stress (Shi et al., 2019). Back then, games are always considered negative because they have various impacts on human psychology (Saleme et al., 2020). However, playing games turn out to have many benefits, such as improving memory, arithmetic, teamwork, and leadership skills (Shi et al., 2019). Based on the results of research conducted by Pokkt, Decision Lab, and the Mobile Marketing Association (MMA) in 2019, the number of mobile game players in Indonesia reached 60 million, and it is estimated that this number will increase to 100 million by 2020 (tek.id, 2019).

Many mobile game companies promote their games through YouTube. Ads in the form of videos such as those on YouTube are certainly more attractive than other forms of advertising (Schwenzow et al., 2021). The problem is that the effectiveness of advertising games on YouTube is still questionable. The majority of users skip ads that appear on YouTube, because they are considered annoying (Zhou & Xue, 2019). Based on the research results conducted by We Are Social in 2019, social media users in Indonesia reached 150 million people, and 88 percent of that number used YouTube (katadata, 2019). To make an advertising effective, it must follow the AIDA framework (Attention, Interest, Desire, Action), where the first stage is attracting users' attention (Bakar et al., 2015).

This research aims at gaining an in-depth understanding of the factors in mobile game ads on YouTube, in particular: 1) What are the factors of ads that attract users' attention? 2) What are the factors of ads that affect users' download interest?

2 LITERATURE REVIEW

There are three main factors that motivate people to play games, including challenges, satisfaction in accumulating virtual wealth, and in-game rewards (Shi et al., 2019). It was also found that challenges can direct player behavior while playing a game (van der Lubbe et al., 2021). When provoked by challenges, emotional value will appear. It is the mood or feeling of wanting to try the game or when playing it (Thongmak, 2020). The most popular mobile games are games with social aspects and connected via the internet (Hsiao & Chen, 2016).

Based on the results of HubSpot's research in 2020, Youtube is the fourth most used social media by marketers (HubSpot, 2021). Some mobile game companies even advertise quite aggressively early in the game's release or even before release (Dinsmore, 2021). Advertising in the form of videos carried out by mobile game companies is called Video Marketing. It is one of the techniques available in Digital Marketing (Investopedia, 2020). Video Marketing has three main goals, i.e., to inform, entertain, and teach. Good Video Marketing content must provide the

information consumers need and explain specific areas of information (Costa Sánchez, 2017). The other purpose of advertising is to build good communication with consumers to increase their trust in the company (Sunyoto, 2017). In ad, message appeals can be embedded to make it more interesting, such as comparisons to competitor products, fear appeals, and comedy appeals (Belch & Belch, 2018).

3 RESEARCH METHOD

This research used a qualitative research method. Data collection was done through a focus group discussion. Participants in this research were divided into two groups. The first group consisted of YouTube users who have downloaded games because of ads, while the second group was the opposite. The participants of this research were given several open-ended questions, then some mobile game ads on YouTube in the Action/RPG and Strategy categories would be presented to ask their opinion. Data collection in this research was conducted virtually using Google Meet in mid-October 2021.

3.1 *Participants characteristics*

In The selected participants in each group were YouTube users who liked playing mobile games. Based on a survey conducted by We Are Social in 2021, Indonesians generally watch YouTube for 52 minutes per day (KOMPAS.com, 2021). Furthermore, based on a survey conducted by the NPD Group in 2018, Indonesians generally played mobile games for two hours per day (LINE Today, 2018). Based on the data, the authors tried to find participants that consumed more time compared to people in general.

3.2 *Data Analysis*

The data were analyzed using the Nvivo 12 Plus 2019 data management software by QSR International Pty Ltd. The steps taken using the Nvivo software were importing files into the project, making annotations or memos as notes for researchers, and coding. Finally, the categories that have been generated from the coding process were grouped into several themes.

4 RESULTS AND DISCUSSIONS

Focus group discussions were conducted once for each group. The members of each group consisted of six people. The discussion with the first group was held on 17 October 2021, for 57 minutes. While the discussion for the second group was held on 21 October 2021, for 64 minutes. There were three codes generated based on the analysis, which were grouped into three main themes, namely factors that attract users' attention, factors that increase users' download intention, and factors that reduce users' download intention (themes have been adapted to the formulation of the research problem).

4.1 *Theme 1: Factors that attract users' attention*

4.1.1 *Comedy as a factor that attracts users' attention*

Costa Sánchez (2017) said that content in Video Marketing has three main purposes, one of which is to entertain. To entertain, advertisers often embed elements of comedy. Comedy can also make people forget the negative sides or shortcomings of an ad or product (Belch & Belch, 2018). Masagung expressed his opinion when an ad for the Mobile Legends mobile game was presented: *"...In my opinion, the ad is rich in comedy, so it makes me interested in watching it, even though I have downloaded it, I will still watch the ad."*

Based on the results of the discussion, both groups agreed that the comedy factor in advertising was important. One of the participants from the first group said:

"...this ad is unique, there are several ads for Mobile Legends, not just this one, the ads are unique and funny. I think the ad is really good, it's different from the others."

4.2 Theme 2: Factors that increase users' download intention

4.2.1 Challenge as a factor that increases users' download intention

Challenge is one of the three most motivating factors to play a game (Shi et al., 2019). Challenges are also able to direct player behavior or habits in playing a game (van der Lubbe et al., 2021). One of the discussion participants from the first group expressed his opinion:

"...sentence in ads like, 'Can you get a higher score than this?' makes me feel challenged."

When users were provoked by challenges as conveyed by the participants above, the emotional value would appear (Thongmak, 2020). However, several people played a game because they felt challenged. Meanwhile, the second group was not influenced by challenges.

4.3 Theme 3: Factors that decrease users' download intention

4.3.1 Gameplay Incompatibility as a factor decreasing users' download intention

One of the characteristics of good video content is that it presents specific information (Costa Sánchez, 2017). One of the problems emphasized by the participants from the first group was many ads didn't have the original gameplay. One of them said:

"... sometimes the ads are deceptive, not following the original gameplay and are only looks good in the ads."

Another participant added how he thought the deceptive features of the game's adverts were:

"...the characteristics of deceptive ads, usually the ads are good, but when you check the game on the play store, the screenshots don't match."

Based on the product-level theory proposed by Sunyoto (2017), the first thing advertisers should convey in ads is the core benefit so that consumers understand what the product offers.

5 CONCLUSIONS

There are two factors of mobile game ads on Youtube that affect users' download intention, the first is challenges and the second is gameplay incompatibility. Challenges increases users' download intention, while gameplay incompatibility decreases users' download intention. However, both of these factors only apply to the first group. Participants of the second group don't really pay much attention to mobile game ads.

5.1 Managerial implications

Several things could be applied, i.e., embedding the element of comedy in the ad, showing the offered game features clearly, and showing the gameplay on the ad as it is.

5.2 Limitations and suggestions

The participants in this research were divided into two groups based on whether or not they had downloaded mobile phone games because they saw ads. For further research, participants were divided into several groups based on other indicators, such as age or personality.

REFERENCES

- Bakar, M. H. A., Desa, M. A. M., & Mustafa, M. (2015). Attributes for Image Content that Attract Consumers' Attention to Advertisements. *Procedia - Social and Behavioral Sciences*, 195, 309–314. <https://doi.org/10.1016/j.sbspro.2015.06.349>
- Belch, G. E., & Belch, M. A. (2018). *Advertising and promotion: An integrated marketing communications perspective* (Eleventh edition). McGraw-Hill Education.
- Costa Sánchez, C. (2017). Online video marketing strategies: Typology according to business sectors. *Communication & Society*, 30(1). <https://doi.org/10.15581/003.30.1.17-38>

- Dinsmore, J. (2021). *Introduction: Advancing understanding of mobile applications in marketing*. 3. <https://doi.org/10.1016/j.jbusres.2021.01.005>
- Hsiao, K.-L., & Chen, C.-C. (2016). What drives in-app purchase intention for mobile games? An examination of perceived values and loyalty. *Electronic Commerce Research and Applications*, 16, 18–29. <https://doi.org/10.1016/j.elerap.2016.01.001>
- HubSpot. (2021). *The Ultimate List of Marketing Statistics for 2021*. <https://www.hubspot.com/marketing-statistics>
- Investopedia. (2020, December 30). *Digital Marketing*. <https://www.investopedia.com/terms/d/digital-marketing.asp>
- katadata. (2019, March 6). *Youtube, Medsos No. 1 di Indonesia*. <https://katadata.co.id/ariayudhistira/infografik/5e9a55212afab/youtube-medsos-no-1-di-indonesia>
- KOMPAS.com. (2021, February 23). *Berapa Lama Orang Indonesia Akses Internet dan Medsos Setiap Hari?* <https://tekno.kompas.com/read/2021/02/23/11320087/berapa-lama-orang-indonesia-akses-internet-dan-medsos-setiap-hari-?page=all>
- LINE Today. (2018, November 28). *Berapa Rata-rata Waktu yang Biasa Dhabiskan Seseorang untuk Main Game?* <https://today.line.me/id/v2/article/9Z62qR>
- Saleme, P., Pang, B., Dietrich, T., & Parkinson, J. (2020). *Prosocial digital games for youth A systematic review of interventions.pdf*.
- Schwenzow, J., Hartmann, J., Schikowsky, A., & Heitmann, M. (2021). Understanding videos at scale: How to extract insights for business research. *Journal of Business Research*, 123, 367–379. <https://doi.org/10.1016/j.jbusres.2020.09.059>
- Shi, J., Renwick, R., Turner, N. E., & Kirsh, B. (2019). Understanding the lives of problem gamers: The meaning, purpose, and influences of video gaming. *Computers in Human Behavior*, 97, 291–303. <https://doi.org/10.1016/j.chb.2019.03.023>
- Sunyoto, D. (2017). *DASAR-DASAR MANAJEMEN PEMASARAN: Konsep, Strategi, dan Kasus* (1st ed.). Center of Academic Publishing Service.
- tek.id. (2019, October 17). *Jumlah gamer di Indonesia capai 100 juta di 2020*. <https://www.tek.id/insight/jumlah-gamer-di-indonesia-capai-100-juta-di-2020-b1U7v9c4A>
- Thongmak, M. (2020). Determinants of intention to play Pokémon Go. *Heliyon*, 6(12), e03895. <https://doi.org/10.1016/j.heliyon.2020.e03895>
- van der Lubbe, L. M., Gerritsen, C., Klein, M. C. A., & Hindriks, K. V. (2021). Empowering vulnerable target groups with serious games and gamification. *Entertainment Computing*, 38, 100402. <https://doi.org/10.1016/j.entcom.2020.100402>
- Zhou, L., & Xue, F. (2019). *In-Feed Native Advertisement on News Websites: Effects of Advertising Format, Website Reputation, and Product Involvement*. 30.

The Impact of Liquidity Creation on Indonesian Commercial Banks Profitability Before and During the COVID-19 Pandemic

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ABSTRACT: The COVID-19 pandemic has created a “new normal” in every aspect of life, including banking activities. This study aims to determine whether the “new normal” during the COVID-19 pandemic will also result in changes in the impact of liquidity creation (as a widespread and vital activity for banks) on bank performance by profitability. This study covered all commercial banks in Indonesia from 2015 to 2020 using the panel data regression method. The study results show a difference in the impact of liquidity creation on bank profitability before and during the COVID-19 pandemic. It is discovered that the positive relationship between liquidity creation and bank profitability had become weaker during the COVID-19 pandemic. This study is expected to provide considerations for bank management about strategies to survive or even attain growth amid crises that might happen in the future regarding the change of relationship between liquidity creation and bank profitability.

1 INTRODUCTION

Liquidity creation is an essential function of the bank. Banks carry out liquidity creation activities as intermediaries in the economy; that is, to distribute funds in the society. The COVID-19 pandemic has created a “new normal” in every aspect of life, including banking activities. There is a contrasting phenomenon in Indonesian banking activities before and during the COVID-19 pandemic. Before the pandemic, there had been a decline in liquidity creation due to credit growth, greater than the growth of Third-Party Funds (TPF) (Otoritas Jasa Keuangan Indonesia, 2018). The opposite happened during the pandemic, where the increase in liquidity creation is due to higher TPF growth exceeding the credit growth (Otoritas Jasa Keuangan Indonesia, 2019, 2020). This causes the bank’s liquidity creation to be very strong.

Yet, different studies show how liquidity creation impacts bank profitability. Duan and Niu (2020) and (King, 2013) found a positive relationship between liquidity creation and bank profitability. However, research conducted by Fungacova, Turk, and Weill (2015), Sahyouni and Wang (2018, 2019), Yusgiantoro (2019), and Tran, Lin, and Nguyen (2016) found a negative relationship between liquidity creation and bank profitability. This affirms that the bank’s strategy to pursue the growth of low-cost funds or current account savings accounts (CASA) is good for bank performance, but in terms of profitability, it became inconclusive.

This study provides an update on liquidity creation in the context of the COVID-19 pandemic. The purpose is to investigate whether the effect of liquidity creation on bank profitability will differ between before and during the pandemic in Indonesia. The context of this COVID-19 pandemic is different from any past crises in Indonesia, where there are high banking liquidity or additional liquidity creation activities, which are the opposite of previous financial crises where banks tended to lack liquidity.

2 LITERATURE REVIEW

Liquidity creation was first introduced by Allen N. Berger and Bouwman (2009). To create liquidity, the bank converts its liquid assets into illiquid liabilities or funds illiquid assets with liquid liabilities. In addition, banks usually also carry out off-balance sheet activities to create liquidity, making it one of the bank’s essential functions. (Kashyap, Rajan, & Stein, 2002)

Several studies examine the effect of liquidity creation on bank profitability. While (Duan & Niu, 2020; King, 2013) found a positive relationship, (Fungacova et al., 2015; Sahyouni & Wang,

2018, 2019; Tran et al., 2016; Yusgiantoro, 2019) found a negative relationship between liquidity creation and bank profitability. The High Liquidity Creation Hypothesis (HLCH) by Fungacova et al. (2015) explains that liquidity creation is negatively correlated with bank profitability because liquidity creation will lead to a higher level of bank risk, increasing the probability of bankruptcy, thereby reducing bank profitability. However, these results contrast with the study by Diamond and Dybvig (1983), which stated that maximum liquidity creation is formed when illiquid assets turn into liquid liabilities. The formation of liquidity (liquidity creation) is the main process for banks to continue to grow. Furthermore, Le Héron (2001) on bank liquidity preference theory mentioned that to manage liquidity, banks can reduce liquidity creation by holding more liquid assets to protect value from liquidity risk due to mismatch of maturity between assets and liabilities. Because liquid assets tend to yield lower returns than illiquid assets, holding liquid assets lowers bank earnings. Thus, liquidity creation has a positive relationship with bank profitability. The relationship between liquidity creation and bank profitability in times of crisis has been shown in the research of Duan and Niu (2020), which confirmed the relationship between liquidity creation and bank profitability during the 2007-2009 financial crisis; liquidity creation can be associated with higher bank profitability in each sub-period, where this positive relationship holds in both normal periods and crisis periods.

However, as far as the literature review of this study is composed, no research directly shows the relationship between liquidity creation and bank profitability during the crisis in Indonesia. Yusgiantoro (2019) study with a sample of 558 commercial banks in 84 countries, including Indonesia, found that liquidity creation leads to lower bank profitability and higher financial instability. However, the study does not include the crisis period and only generally examines the 2011-2017 period. Thus, by taking all these into account, this study would contribute to the existing academic literature on this topic by analyzing the implications of liquidity creation on bank performance by profitability before and during the COVID-19 pandemic, with all commercial banks operating in Indonesia as a sample.

3 METHODOLOGY

This study refers to the research conducted by Duan and Niu (2020) in the United States. The secondary data is collected from quarterly data from the first quarter of 2015 to the fourth quarter of 2020 for all conventional commercial banks in Indonesia. The regression equation for the research as follows:

$$\pi_{i,t} = \beta_0 + \beta_1 LC_{i,t} + \beta_2 SIZE_{i,t} + \beta_3 CAP_{i,t} + \beta_4 RISK_{i,t} + \beta_5 EFF_{i,t} + \beta_6 BM_{i,t} + \beta_7 BI\ Rate_{i,t} + \beta_8 GROWTH_{i,t} + \beta_9 EXRate_{i,t} + \varepsilon_{i,t} \quad (1)$$

The analytical method in this study is regression analysis on panel data consisting of 2,088 observations from 24 periods (quarterly data from 2015-2020) and 87 commercial banks in Indonesia. The proxies for bank profitability include a return on assets (ROA), a return on equity (ROE), and a net interest margin (NIM). The method employed for measuring liquidity creation is the procedure from the research of Allen N. Berger and Bouwman (2009). Furthermore, this study uses eight control variables and will be categorized as bank-specific and macroeconomic factors. The five control variables of bank-specific factors, include: bank size proxied by natural logarithm of total assets; capital strength proxied by equity to total assets, credit risk proxied by LLPTL ratio; operational efficiency proxied by operating cost to operating income; and business model characteristics proxied by total loans to total assets, total deposits total assets and noninterest income to total operating income. The three control variables categorized as macroeconomic factors are; BI rate, exchange rate between USD and IDR, and economic growth proxied by GDP growth. The panel data regression is performed using three methods: pooled least square, fixed effect, and random effect. After the most suitable method is selected, the classical assumption test in the econometric model will be carried out against the best linear unbiased estimators (BLUE) assumption. This classic assumption test includes normality, multicollinearity, autocorrelation, and heteroscedasticity tests. After testing the classical assumptions to reveal the validity of the research model, statistical criteria will be tested using the F-statistical, R-squared, and t-statistical tests.

4 RESULTS AND DISCUSSIONS

The results of panel data regression using the random-effects model show that liquidity creation has a positive and significant relationship with the profitability of conventional commercial banks in Indonesia before and during the pandemic, shown by the coefficient of 0.010056 before the pandemic and 0.007261 during the pandemic. A positive relationship between liquidity creation and bank profitability is also found in the research by Duan and Niu (2020) and King (2013). Le Héron (2001) bank liquidity preference theory stated that to manage liquidity, banks can reduce the creation of liquidity by holding more liquid assets to hedge against liquidity risk due to mismatch of maturities between assets and liabilities because liquid assets tend to earn less than illiquid assets, thus, holding liquid assets lowers bank earnings. The results show that liquidity creation is the main process for the bank to continue to grow both during normal and crisis times. By comparing the statistical test results, it is found that there are differences in the effect of liquidity creation on bank profitability before and during the pandemic as indicated by a decrease in the coefficient by 27.79% compared to the period before the pandemic, and the increasing significance level, which is initially 5% to 10%. This difference in results may be possible due to over liquidity in banks during the pandemic, where banks must continue to pay funds fees to depositors but cannot create more credit due to the contracted economy caused by the COVID-19 pandemic.

Overall, the empirical test results of the control variables on the dependent variables are consistent with the research hypothesis. The control variable that has a negative and significant effect on bank profitability are: (1) bank size, in line with the research by Chronopoulos, Liu, McMillan, and Wilson (2015) in which the effect of bank size can be negative due to its complexity and other reasons; (2) credit risk, following the research of Adelopo, Lloydking, and Tauringana (2018), it shows that credit risk will reduce bank performance due to costs that banks must incur for controlling non-performing loans. Meanwhile, the control variables that have a positive and significant effect on bank profitability are: (1) capital strength, based on the research of Mehran and Thakor (2011), banks with large capital tend to be in a better position to take advantage of market opportunities and get more deposits or savings that can increase interest income; (2) exchange rate, which reveals that when the domestic currency depreciates, the bank's profitability will increase which are similar to the research results of Garcia and Trindade (2019); and (3) economic growth, which is also found in the research by Trujillo-Ponce (2013), where economic growth is due to the demand for credit which increases along with the increase in GDP.

5 Conclusions

The results of this study illustrate differences in the relationship between liquidity creation and bank profitability before and during the COVID-19 pandemic. The positive relationship between liquidity creation and profitability in normal times becomes smaller during the pandemic. However, this study has limitations in the terms of the results since they do not include the context for further discussion of this difference. The suggestion for future research might be to further explain the cause of the difference in the effect of liquidity creation on bank profitability before and during the pandemic. Further researchers can consider adding macroeconomic and bank-specific factors that can help emphasize the different effects of liquidity creation on bank profitability before and during the pandemic. The managerial implications of this study are to provide information to bank management that liquidity creation is one of the main activities that can support bank profitability. Thus, creating liquidity by pursuing low-cost funds or CASA is the right strategy to support bank profitability during the pandemic. In addition, this emphasizes the importance of creating liquidity for banks where liquidity creation is the main process for banks so that banks can continue to grow both during normal times and during crises.

REFERENCES

- Adelopo, I., Lloydking, R., & Tauringana, V. (2018). Determinants of bank profitability before, during, and after the financial crisis. *International Journal of Managerial Finance*.

- Berger, A. N., & Bouwman, C. H. S. (2009). Bank Liquidity Creation. *Review of Financial Studies*, 22(9), 3779-3837. doi:10.1093/rfs/hhn104
- Chronopoulos, D. K., Liu, H., McMillan, F. J., & Wilson, J. O. (2015). The dynamics of US bank profitability. *The European Journal of Finance*, 21(5), 426-443.
- Diamond, D. W., & Dybvig, P. H. (1983). Bank runs, deposit insurance, and liquidity. *Journal of political Economy*, 91(3), 401-419.
- Diamond, D. W., & Rajan, R. G. (2000). A theory of bank capital. *the Journal of Finance*, 55(6), 2431-2465.
- Diamond, D. W., & Rajan, R. G. (2002). Bank bailouts and aggregate liquidity. *American Economic Review*, 92(2), 38-41.
- Duan, Y., & Niu, J. (2020). Liquidity creation and bank profitability. *The North American Journal of Economics and Finance*, 54. doi:10.1016/j.najef.2020.101250
- Fungacova, Z., Turk, R., & Weill, L. (2015). *High Liquidity Creation and Bank Failures; Do They Behave Differently?* Retrieved from
- Garcia, M. T. M., & Trindade, M. J. (2019). Determinants of banks' profitability in Angola. *African Journal of Economic and Management Studies*.
- Kashyap, A. K., Rajan, R., & Stein, J. C. (2002). Banks as liquidity providers: An explanation for the coexistence of lending and deposit-taking. *the Journal of Finance*, 57(1), 33-73.
- King, M. R. (2013). The Basel III net stable funding ratio and bank net interest margins. *Journal of Banking & Finance*, 37(11), 4144-4156.
- Le Héron, E. (2001). *La préférence pour la liquidité des banques: une analyse post-keynésienne du comportement bancaire*. Retrieved from
- Mehran, H., & Thakor, A. (2011). Bank capital and value in the cross-section. *The Review of Financial Studies*, 24(4), 1019-1067.
- Otoritas Jasa Keuangan Indonesia. (2018). Statistik Perbankan Indonesia. Retrieved from <https://www.ojk.go.id/id/kanal/perbankan/data-dan-statistik/statistik-perbankan-indonesia/default.aspx>
- Otoritas Jasa Keuangan Indonesia. (2019). Statistik Perbankan Indonesia. Retrieved from <https://www.ojk.go.id/id/kanal/perbankan/data-dan-statistik/statistik-perbankan-indonesia/default.aspx>
- Otoritas Jasa Keuangan Indonesia. (2020). Statistik Perbankan Indonesia. Retrieved from <https://www.ojk.go.id/id/kanal/perbankan/data-dan-statistik/statistik-perbankan-indonesia/default.aspx>
- Sahyouni, A., & Wang, M. (2018). The determinants of bank profitability: does liquidity creation matter? *Journal of Economics and Financial Analysis*, 2(2), 61-85.
- Sahyouni, A., & Wang, M. (2019). Liquidity creation and bank performance: evidence from MENA. *ISRA International Journal of Islamic Finance*.
- Tran, V. T., Lin, C.-T., & Nguyen, H. (2016). Liquidity creation, regulatory capital, and bank profitability. *International Review of Financial Analysis*, 48, 98-109. doi:10.1016/j.irfa.2016.09.010
- Trujillo-Ponce, A. (2013). What determines the profitability of banks? Evidence from Spain. *Accounting & Finance*, 53(2), 561-586.
- Yusgiantoro, I. (2019). Bank Capital, Liquidity Creation, Profitability, and Financial Stability: Evidence Across Countries. *Otoritas Jasa Keuangan (OJK) Working Paper Series*, 19/02.

Continuous Intention Analysis of Video Conferencing Services

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ABSTRACT: This study aims at analyzing users' continuous intention of the video conferencing product by using a combination of VAM (Value-Based Adoption Model) and ECM (Expectation Confirmation Model). A quantitative study was employed and the respondents were the users who have registered. The processed data were collected from 106 respondents. Then, the data were analyzed using the PLS-SEM method. It was found that the satisfaction and perceived value variables can explain users' continuous intention with an R square of 64.4%. The hypothesis test shows that there are seven significant relationships and three insignificant relationships of the 11 relationships variables in the combined VAM and ECM models. Only one significant negative relationship could be found, which is technicality and perceived value.

The results can be employed by the video conferencing service management unit to increase satisfaction and perceived value because these two variables are proven to be factors that determine the users' continuous intention.

1 INTRODUCTION

Video conferencing is a video-based online interaction service involving several participants. Due to the COVID-19 pandemic that restricts interactions since the beginning of 2020, the popularity of conferencing services has increased. This solution for the pandemic restriction has fostered a new culture.

Several theories explain technology adoption, including Diffusion of Innovation (DIT) (Rogers, 1995), the Technology Acceptance Model (TAM) (Venkatesh & Davis, 1996), Unified Theory of Acceptance and Use of Technology (UTAUT) (Venkatesh et al., 2003), VAM (Kim et al., 2007), and ECM (Bhattacharjee, 2001). This study uses a combination of VAM and ECM theories to measure continuous intention in one of the video conferencing services in Indonesia.

2 LITERATURE REVIEW

2.1 *Expectation Confirmation Model (ECM)*

In studying the aspect of continuance intention, Expectation Confirmation Theory has proven to be a helpful framework (Bhattacharjee, 2001) and has been extensively modified to study the adoption and continuance use of a technology (Chen et al., 2012; Joo et al., 2017; Lin et al., 2012). The ECM is derived from ECT and was developed by Bhattacharjee (Bhattacharjee, 2001) to understand the continuous usage of information technology.

2.2 *Value-Based Adoption Model (VAM)*

This model was developed by Kim et al. (2007) to study mobile internet adoption in Singapore. This has been employed because of the limitations of TAM in explaining the adoption of new ICT technologies. Consumers also adopt new ICT technology, not just technology users in a company. Technology users in a company pay attention to usefulness and easy-to-use factors, while consumers prioritize factors to maximize value.

3 RESEARCH FRAMEWORK

This study seeks to analyze user behavior on a video conferencing product related to their desire to continue using the service in the future. A combination of the VAM and ECM was employed because these two models can be used to analyze the effect of various variables on continuous intention comprehensively. Based on these two models and previous studies, the developed framework of the study is depicted in Figure 1.

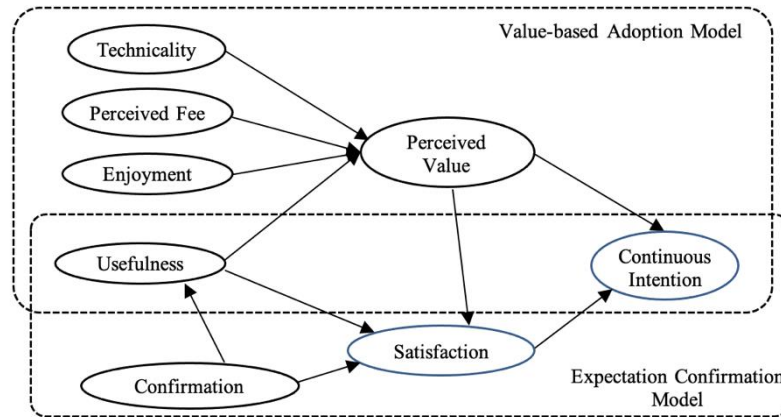


Figure 1. A theoretical framework based on Kim et al. (2007) and Bhattacharjee (2001)

4 METHOD

4.1 Sampling and Data Collection

This study aimed at the users of a video conferencing service in Indonesia. The population of the study is registered users that amounted to 23,329 users. The sampling method used in this study is non-probability where the sample does not have a predetermined probability of being selected as a sample (Sugiyono, 2013). On the other hand, a simple random sampling technique is adopted to collect samples from members of the population. The survey was conducted by distributing a Google Forms link to around 1,500 samples from 12 to 28 March 2021. There are 111 responses and 106 of them are valid.

4.2 Data Analysis

The analysis of the developed model was done using the SEM-PLS, SEM-PLS was employed to process the data due to its function to analyze formative and reflective models. SEM-PLS analysis was done using SmartPLS 3.0 to analyze the measurement model (outer model) and structural model (inner model).

In the outer model, validity and reliability measurement processes were conducted, while the inner model was employed to test the model and hypothesis. Measurement of validity was conducted using convergent and discriminant validity. The following tests were done to calculate the inner model: collinearity, R square, f square, Q square, Goodness of Fit, and Significant Testing Based on Path Coefficient. At the same time, a hypotheses test was done using the bootstrap technique with a sub-sample of 500.

5 RESULT

Hypothesis testing was performed to predict the causal relationship between variables. The results of testing the structural model with the t statistical test are shown in Table 1 below:

Table 1. Test of hypotheses

Independent variables	Dependent variables	Path Coefficient	t-Value	p-Values	Result
Confirmation	Satisfaction	0.422	3.405	0.000	Supported
Enjoyment	Satisfaction	0.180	1.991	0.023	Supported
Perceived Value	Satisfaction	0.271	1.798	0.036	Supported
Usefulness	Satisfaction	0.097	1.087	0.139	Rejected
Enjoyment	Perceived Value	0.319	2.691	0.004	Supported
Perceived Fee	Perceived Value	0.022	0.277	0.391	Rejected
Usefulness	Perceived Value	0.159	1.210	0.113	Rejected
Technicality	Perceived Value	-0.392	3.569	0.000	Supported
Confirmation	Usefulness	0.597	3.405	0.000	Supported
Perceived Value	Continuous Intention	0.315	2.726	0.003	Supported
Satisfaction	Continuous Intention	0.522	4.655	0.000	Supported

Source: research result (2021)

Three hypotheses are rejected, namely: usefulness and perceived value, usefulness and satisfaction, and the relationship between perceived fees and perceived value. Other hypotheses are supported and only one relationship has a negative effect, which is the relationship between technicality and perceived value.

6 CONCLUSION

Hypothesis tests show that continuous intention is influenced by satisfaction and perceived value. Respectively, satisfaction is influenced by confirmation, enjoyment, and perceived value. In this case, perceived value is influenced by enjoyment and technicality. Therefore, it can be concluded that the exogenous variables that have a significant effect are enjoyment, technicality, and confirmation. A technicality in accordance with the theory as an inhibiting factor negatively affects perceived value. While the perceived fee variable has no significant effect on perceived value and usefulness also does not have a significant effect on perceived value and satisfaction.

A confirmation has a significant effect on both usefulness and satisfaction according to the theory of the ECM model and several studies (Bhattacharjee, 2001; Kim et al., 2019; Wang & Wang, 2019).

Enjoyment has a significant effect on perceived value because new users will feel that they get more value when they feel happy and comfortable with the services. These results are in accordance with several previous studies (Kim et al., 2007; Kim et al., 2019; Roostika, 2012),

It was also found that usefulness has no significant effect on perceived value and satisfaction because all respondents are active users of various video conferencing products. They already experienced similar benefits from the product, so they demand more value instead.

The results show that the perceived fee does not have a significant effect on the perceived value because the cost of internet access in Indonesia is one of the cheapest in the world. In this case, users are not burdened with the fees. These results are consistent with the study on mobile internet in Indonesia conducted by Roostika (Roostika, 2012).

Satisfaction and perceived value have a significant influence on continuous intention. These results are consistent with several previous studies (Bhattacharjee, 2001; Kim et al., 2007; Kim et al., 2019; Li & Shang, 2020; Roostika, 2012; Wang & Wang, 2019). Satisfied users will be loyal to the video conferencing product. Likewise, with a higher perceived value, users will keep using the product.

REFERENCES

- Bhattacharjee, A. (2001). Understanding Information System Continuance: An Expectation Confirmation Model- Motivation for the Study. *Information Systems Continuance MIS Quarterly*, 25(3), 351–370.

- Chen, L., Meservy, T. O., & Gillenson, M. (2012). Understanding Information Systems Continuance for Information-Oriented Mobile Applications. *Communications of the Association for Information Systems*, 30. <https://doi.org/10.17705/1cais.03009>
- Joo, Y. J., Park, S., & Shin, E. K. (2017). Students' expectation, satisfaction, and continuance intention to use digital textbooks. *Computers in Human Behavior*, 69, 83–90. <https://doi.org/10.1016/j.chb.2016.12.025>
- Kim, H. W., Chan, H. C., & Gupta, S. (2007). Value-based Adoption of Mobile Internet: An empirical investigation. *Decision Support Systems*, 43(1), 111–126. <https://doi.org/10.1016/j.dss.2005.05.009>
- Kim, S. H., Bae, J. H., & Jeon, H. M. (2019). Continuous intention on accommodation apps: Integrated value-based adoption and expectation-confirmation model analysis. *Sustainability (Switzerland)*, 11(6). <https://doi.org/10.3390/su11061578>
- Li, Y., & Shang, H. (2020). Service quality, perceived value, and citizens' continuous-use intention regarding e-government: Empirical evidence from China. *Information and Management*, 57(3), 103197. <https://doi.org/10.1016/j.im.2019.103197>
- Lin, T. C., Wu, S., Hsu, J. S. C., & Chou, Y. C. (2012). The integration of value-based adoption and expectation-confirmation models: An example of IPTV continuance intention. *Decision Support Systems*, 54(1), 63–75. <https://doi.org/10.1016/j.dss.2012.04.004>
- Rogers, E. M. (1995). Diffusion of Innovations, Fourth Edition. In *Elements of Diffusion*.
- Roostika, R. (2012). Mobile Internet acceptance among university students : A value-based adoption model. *International Journal of Research in Management and Technology*, 2(1), 21–28.
- Sugiyono. (2013). *Statistics for Research*. Alfabeta.
- Venkatesh, V., & Davis, F. D. (1996). A model of the antecedents of perceived ease of use: Development and test. *Decision Sciences*, 27(3), 451–481.
- Venkatesh, V., Morris, M. G., Davis, G. B., & Davis, F. D. (2003). User acceptance of information technology: Toward a unified view. *MIS Quarterly: Management Information Systems*, 27(3), 425–478. <https://doi.org/10.2307/30036540>
- Wang, M. M., & Wang, J. J. (2019). Understanding solvers' continuance intention in crowdsourcing contest platform: An extension of expectation-confirmation model. *Journal of Theoretical and Applied Electronic Commerce Research*, 14(3), 17–33. <https://doi.org/10.4067/S0718-18762019000300103>

Deposit Adequacy Analysis: A Case Study of Biller Transactions at PT. Sarana Pactindo

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ABSTRACT: The stay-at-home restrictions implemented in Indonesia due to the Covid-19 outbreak have significantly affected social-economic activities in the country. This has made cashless payments through digital devices increasingly popular in developing countries. PT. Sarana Pactindo provides solutions to banks in biller transactions, however, the balance held by the bank is insufficient for transactions. This study uses the big data method to predict bank balances through a comparison of the ARIMA, Prophet, and ANN models, by testing its performance value using MAPE, MAE, and RMSE. According to the results, the ANN model has the best performance test value. The prediction results from the ANN model are greater, compared to the actual nominal at the two banks, and the excess nominal can serve as a reserve nominal in cases where the transaction exceeds the predicted result for the next 30 days. Also, for cases where the prediction result is below the nominal transaction, a notification must be sent out once the bank balance is below 30%.

1 INTRODUCTION

The development of the internet and smartphones has led to a technological revolution where consumer preferences are increasingly accustomed to digital media interactions for sharing information regarding social media, transactions, and online shopping (Cuesta, 2015). Based on delivery channel transaction data quoted from Bank Indonesia between 2016 and 2020, there is a perpetual increasing trend in several transactions through delivery channels such as phone, internet, and SMS banking. This is also supported by the stay-at-home restrictions implemented due to the Covid-19 outbreak in Indonesia which is significantly affecting socio-economic, financial, and supply chain activities within the nation. Consequently, cashless payments carried out through smartphones and other devices have become increasingly popular in developing countries, including Thailand, Vietnam, and Indonesia (Aji, 2020). These changes in consumer habits and the new competitive environment are forcing banks and other financial institutions to digitize their services, for instance, adapting to technological and infrastructural developments to survive and remain dominant in the market. (Cuesta, 2015). In this case, PT. Sarana Pactindo provides solutions, specifically aimed at helping banks achieve these goals. Each bank deposits a balance at PT. Sarana Pactindo, which their customers use for biller transactions. According to the interviews with internal parties, several banks tend to run out of balances due to the large number and nominal of transactions, as well as transaction anomalies. This prevents bank customers from conducting biller transactions in cases of insufficient bank balance deposits and affects the value of the services rendered by PT. Sarana Pactindo. Therefore, a functional strategy must be implemented to overcome this challenge. Functional strategies refer to the approaches used by functional areas to achieve company goals and business unit strategic objectives by maximizing resource productivity (Wheelen *et al.*, 2018), specifically for operations. The implementation of this strategy is bound to increase the value of the services rendered by PT. Sarana Pactindo to banks, specifically in the Third-Party Channel quadrant or biller transactions.

2 LITERATURE REVIEW

2.1 *Strategic Management*

Strategic management refers to a set of managerial decisions and actions which determine a company's long-term performance, including internal and external environmental analysis, strategy formulation and implementation, as well as evaluation and control. Meanwhile, environmental scanning is the dissemination of information from the internal and external environment to the company's stakeholders. The purpose of environmental scanning is to identify internal and external strategic factors with the capacity to determine the company's future. Strategy formulation is the development of long-term plans for effective management of environmental opportunities and threats by considering the company's strengths and weaknesses, including determining the guidelines or policies and desired objectives, as well as developing strategies. Meanwhile, strategy implementation is the process of implementing strategies and policies through the development of programs, budgets, and procedures. Evaluation and control refer to the process of monitoring a company's activities and performance results to compare the actual performance with the desired performance. Subsequently, the results of this comparison are used by managers at all levels to take corrective action and resolve problems (Wheelen *et al.*, 2018).

2.2 *Biller*

The term “biller” originates from the word “bill” which refers to an individual, company, or organization that requires payment for a product or service. Billers are usually requested by individuals or groups acting as sellers or merchants. Subsequently, the biller submits a payment request either by paper bill or by electronic form to the customer. The following figure describes how a merchant makes invoices to customers. With current modern technology, billers are easily accessible online to be viewed and paid any time. Also, customers are view information, for instance, the billing data, transaction history, interest rate, transaction source, and amount, as well as a service fee, which are shown on the bill (Clover Network, 2021).

2.3 *Cash Shortage*

Cash shortage or lack of cash occurs when individuals or companies cannot obtain the desired cash nominal balance (Chinyamupembe, 2018). The current possibility of a cash shortage has provided a stimulus to banking habits and cashless transactions. This has caused numerous banks to realize the potential of debit and credit cards, online transfers, and other digital payments, including mobile payment facilities. However, the demand for currency relative to deposit money also depends on each customer's confidence in the banking system, as well as the ability to convert deposits into cash (Lahiri, 2017).

3 METHODOLOGY

This study used a descriptive method aimed at explaining and summarizing various conditions, situations, or variables arising in the community, based on the existing facts (Sugiyono, 2013). The study sample was the transaction data of the top two banks with the highest number of biller transactions: bank 0011 and 0040, from 1st December 2020 to 27th August 2021. Meanwhile, the stages were data preprocessing, data testing, forecasting technique, model evaluation, transaction prediction, and possible strategies to be implemented.

3.1 *Data Preprocessing*

The data collected has several types of transaction statuses and must be filtered to obtain data with a status of 00, meaning successful transaction, to ensure more accurate analysis results. Only data with value or NA were filtered, to avoid interference during the predictions. Subsequently, the data is grouped based on daily transactions.

3.2 Data Testing

In this stage, the normality of the distribution of the mean of the debit amount is tested using the Shapiro-Wilk normality test with $n = 100$ and 100 the number of samples. This produced a p -value of 0.3471, which is above 0.05, therefore, the data is declared accepted or normally distributed H_0 (Singh *et al.*, 2019). Subsequently, the data is tested for stationarity to observe for any trend or seasonality using Augmented-Dickey Fuller. This produced a p -value = 0.01 which is below the alpha value of 0.05, therefore, the hypothesis is rejected or stationary and the data is concluded to possess no trend or seasonality (Yasnita, 2020).

3.3 Forecasting Technique

3.3.1 ARIMA

Before defining the ARIMA model (p,d,q) , the data must be analyzed for the correlation between current transactions and the previous day's prices. Autocorrelation function (ACF) and Partial Autocorrelation (PACF) are the tools needed to analyze autocorrelation between time-series data, as well as to estimate ARIMA parameters (p,d,q) . The p -value is obtained using the PACF tool, while the q value is obtained using the ACF tool (Saumi *et al.*, 2019). In this study, 25 estimates of the ARIMA model were used to select the best model subsequently. ARIMA (20,1,20) has the best performance for bank 0011, while in bank 0040 the ARIMA (9,1,1) has the best value.

3.3.2 Prophet

In the Prophet model, the inputs ds and y represent the date of the dataset used and the nominal of the dataset to be predicted, respectively, while the columns used as input were Datetime and amount_debet. Subsequently, the dataset was entered into the Prophet model with an input interval of 0.90, and a data frame was created to predict the next 30 days.

3.3.3 ANN

Before making the ANN model, the dataset used was divided into 3 parts (slices 1, 2, and 3), comprising 90 samples, 30 tests, and 120 pieces of data that were skipped to distribute the sample evenly in 3 parts of the total 422 data pieces. This step helps to simplify or lighten the computer used in making ANN models. In this study, 2 layers containing 50 nodes each, were used. The first layer contains input (x) which means samples, time steps, and features, as well as the second layer. Subsequently, the three dataset slices are entered into the model and assessed using RMSE, MAE, and MAPE. According to the results, slice 1 has the least performance test value on banks 0040 and 0011.

3.4 Model Evaluation

To test the performance of each model, this study uses MAPE, MAE, and RMSE

Table 1 Comparison performance between methods

Bank	ARIMA			Prophet			ANN		
	RMSE	MAE	MAPE	RMSE	MAE	MAPE	RMSE	MAE	MAPE
0011	25216596	22196570	47,557	29540534	21741028	42,50	64438,3	45673	37,3
0040	76967441	35515993	138,840	67080538	40804967	142,138	196825,7	92771,7	40,4

The characteristics of the data used for both data banks 0011 and 0040, have very large anomalies and do not repeat at the same time, which tends to affect the accuracy of predictions. It can be seen in Table 1, the model that has the best or smallest performance test is the ANN model.

3.5 Possible Transaction Prediction and Strategies to be Implemented

The ANN model is to be implemented to allocate resources and bank operations to be more effective and not make the bank experience a cash shortage. This is one of the variables of the implementation of operational strategy. ANN predicts transactions from 28th August 2021 until 28th September 2021 is 2.391.213.034 for bank 0011, and 1.716.705.253 for bank 0040. 4 strategies can be implemented. First, the implementation of the ANN model can be a reminder to banks that they must adjust their balances according to the predicted results to fulfill their transactions for the next 30 days. Second, provide a reminder when the bank deposit has passed a certain nominal. Third, provide a special scheme for large nominals so that bank balances cannot be suddenly depleted due to transaction anomalies, such as direct debits to PT. Sarana Pactindo in the amount of the nominal transaction carried out without reducing the deposit at the bank. Fourth, the evaluation carried out is monitoring bank transactions the bank is still experiencing a lack of balance and improving the prediction model.

4 CONCLUSIONS AND FUTURE WORK

The use and comparison of several predictive models enable the discovery and retrieval of information from some of these models. For instance, the Prophet model showed an increase in the difference between the actual and predicted data is bound to increase the performance test value. Anomalies in data also tend to affect the results of predictions in a model, therefore, special treatment, for instance, limiting transaction nominals or creating new business process flows to overcome transactions that exceed a certain nominal, are required to overcome anomalous data and improve the prediction results. Based on the results, the ANN model does have the best accuracy rate but also has a significantly complicated configuration and a long modeling time. Meanwhile, the Prophet model has the easiest configuration and provides information about the performance test value within a certain period (time horizon). Therefore, certain considerations must be made in selecting a model for research involving time-series predictions, because each model has different advantages and disadvantages for each dataset used.

REFERENCES

- Aji, H., Berakon, I. & Hiusin, M. 2020. COVID-19 and e-wallet usage intention: A multigroup analysis between Indonesia and Malaysia. *Cogent Business & Management*, 7:1, DOI: 10.1080/23311975.2020.1804181
- Chinyamupembe, M.W. & Chivasa, M.S. 2018. An assessment on the impact of cash shortages on revenue collection in local government authorities. A case of Bulawayo City Bulawayo.
- Clover Network, I. (2021, 06 12). Biller. Retrieved from creditcardprocessing.com: <https://www.creditcardprocessing.com/resource/glossary/b/biller/>
- Cuesta, C., Ruesta, M., Tuesta, D. & Urbiola, P. 2015. The digital transformation of the banking industry. Digital Economy Watch. BBVA research.
- Lahiri, A.K. 2017. Demonetization, the Cash Shortage, and the Black Money. *Working Papers* id:11550, eSocialSciences.
- Lewis, C.D. (1982). *International and Business Forecasting Methods*. Butterworths, London.
- Mishra, P., Pandey, C. M., Singh. (2019). *Descriptive Statistics and Normality Tests for Statistical Data*.
- Sugiyono, P. D. 2013. *Metode Penelitian Kuantitatif, Kualitatif dan R&D*. Bandung. Alfabeta.
- Wheelen, T. L., Hunger, J. D., Hoffman, A. N. & Bamford, C.E. 2018. *Strategic Management and Business Policy Globalization, Innovation and Sustainability*. New York: Pearson.
- Yasnita. 2020. Analisis Data Meteorologi Untuk Prakiraan Kekeringan Menggunakan Metode Klasifikasi Decision Tree dan Peramalan Seasonal Autoregressive Integrated Moving Average (SARIMA).

A Case Study of Renewable Energy Consumption, Financial Development, and Economic Growth in Indonesia, the Philippines, and Malaysia

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ABSTRACT: This study aims to determine the relationship between Renewable Energy Consumption (REC), Financial Development (FD), and Economic Growth (EG) in Indonesia, the Philippines, and Malaysia. Renewable energy has been an effective method of solving environmental pollution in these countries. Meanwhile, previous studies showed that the developmental progress of this sector depends on economic and financial market growth. The panel data of the renewable energy between 1990-2020 were analyzed using an Autoregressive Distributed Lag-Pooled Mean Group (ARDL-PMG) model. The study shows a negative and positive correlation between EG and REC in the short and long run, respectively. However, there should be interactions between FD and REC since the governments are expected to develop policies to increase the investment in the renewable energy sector by giving tax relief and financial incentives. Greener technologies should also be established and implemented to increase renewable energy sources for listed firms. In addition, the financial sector may facilitate firms and customers by providing low-rate funds for the latest energy-efficient technologies.

1 INTRODUCTION

According to the data obtained from Bank Indonesia, the national GDP grew 7.07 percent annually in the second quarter of 2021, putting it in positive territory (Bank Indonesia, 2021). In addition, the BP data from 2020 reported that oil and coal usage declined by 26% and 4.9 percent, respectively. However, it was followed by a 3.1 percent growth in renewable energy consumption (BP, 2020), which can help a country largely reliant on imported energy to avoid a financial disaster (B. Wang et al., 2018). The renewable energy sector is capital-intensive because the projects' infrastructure, start-up, and operation costs are higher than those of fossil fuels (Bamati et al., 2020; Lin et al., 2019). This energy in the form of wind, biomass, solar, hydro, and geothermal is envisioned as the primary source and a means of addressing climate change while assuring high security (Menyah et al., 2010). According to Wang's journal, financial advancements and economic growth substantially impact long-term renewable energy consumption in China (J. Wang et al., 2021). Therefore, this study aims to analyze the relationship between Renewable Energy Consumption, Financial Development, and Economic Growth in Indonesia, the Philippines, and Malaysia is measured using Autoregressive Distributed Lag (ARDL) based on previous results in China (J. Wang et al., 2021).

2 LITERATURE REVIEW

There was some inconsistency when researching the relationship between REC and economic growth. Economic expansion in developing markets and Sub-Saharan Africa positively impacts REC (da Silva et al., 2018; Sadorsky, 2009). However, the nexus turns negative in Turkey and low-income nations (Dogan, 2015; Nguyen et al., 2019). Alam and Murad discovered that economic growth has a negative and positive nexus with REC in the short and long terms for OECD nations, respectively (Alam et al., 2020). In China, Wang discovered a negative nexus with REC in the short run for the National Level, Eastern, and Western China, but a positive nexus for all levels in the long run (J. Wang et al., 2021).

Several studies have analyzed the relationship between financial development and renewable energy consumption. Wu and Boradstock discovered that financial growth had a beneficial impact

on REC in emerging nations (Wu et al., 2015). Furthermore, Kutun analyzed the stock market development and foreign direct investment in China, Brazil, India, and South Africa and stated that they may help the REC (Kutan et al., 2018). Charfeddine and Kahia discovered that financial development and REC have a minor impact on economic growth and carbon emissions in the Middle East and North Africa (Charfeddine et al., 2019). Meanwhile, Anton and Nucu reported that financial development positively affected the REC in 28 European nations from 1990 to 2015. (Anton et al., 2020). In China, financial development showed a favorable short-run nexus with REC in the National Level, Central, and Western China, but a negative long-run linkage (J. Wang et al., 2021).

Few studies investigated the relationship between REC, Financial Development, and Economic Growth. Burakov and Freidin discovered a link between these three indicators on long-term equilibrium in Russia between 1990 and 2014 using the Vector Error Correction Model (VEC) and the Granger Causality Test. The study suggested a bi-directional causal association between financial development and economic growth (Burakov, 2017). Then, Eren conducted a study in India, which utilized annual time series data from 1971 to 2015 to employ Dynamic Ordinary Least Squares (DOLS). Using the ARDL model and the Dumitrescu and Hurlin causality test, Wang discovered that financial advancements and economic growth considerably influence long-term renewable energy consumption in China. Therefore, economic growth in China can promote renewable energy usage (J. Wang et al., 2021).

3 RESEARCH METHODS

This study uses panel data from Indonesia, Malaysia, and the Philippines from 1990 to 2020 to investigate the effects of financial development and economic growth on REC and the causality between the three factors. These figures are derived from the Indonesian Central Bureau of Statistics, the Ministry of Energy and Mineral Resources of the Republic of Indonesia, the Malaysian Yearbook of Statistics, the Philippine Statistical Yearbook, and the World Bank Financial Structure Database. The empirical studies use per capita metrics to reduce the effect of the population size, such as REC per capita, financial value-added per capita, and GDP per capita.

In this study, regression analysis with the ARDL-PMG estimator model was used to examine the effects of financial development and economic growth on REC, as well as the causality between these three variables:

$$RECPC_{i,t} = \alpha_i \sum_{j=1}^p \beta_{i,j} RECPC_{i,t-j} + \sum_{j=1}^q \delta_{i,j} Z_{i,t-j} + \varepsilon_{i,t} \quad (1)$$

$$Z_{i,t} = (FDPC, EGPC) \quad (2)$$

$$\Delta RECPC_{i,t} = ECT_{i,t} + \sum_{j=1}^{p-1} \theta_{i,j}^* \Delta RECPC_{i,t-j} + \sum_{j=0}^{q-1} \vartheta_{i,j}^* \Delta Z_{i,t-j} + \varepsilon_{i,t} \quad (3)$$

$$\Delta RECPC_{i,t} = ECT_{i,t} + \sum_{j=1}^{p-1} \theta_{i,j}^* \Delta RECPC_{i,t-j} + \sum_{j=0}^{q-1} \vartheta_{i,j}^* \Delta Z_{i,t-j} + \varepsilon_{i,t} \quad (4)$$

$$\begin{aligned} ECT_{i,t} &= \phi_i RECPC_{i,t-1} - \varphi_i Z_{i,t} \\ \phi_i &= -(1 - \sum_{j=1}^p \theta_{i,j}), \\ \varphi_i &= - \frac{\sum_{j=0}^q \vartheta_{i,j} \Delta Z_{i,t-j} + \varepsilon_{i,t}}{(1 - \sum_{j=1}^p \theta_{i,j})} = \frac{\sum_{j=0}^q \vartheta_{i,j}}{\phi_i} \\ \theta_{i,j}^* &= - \sum_{s=j+1}^p \theta_{i,s} \\ \vartheta_{i,j}^* &= - \sum_{s=j+1}^q \vartheta_{i,s} \end{aligned}$$

The ARDL model results continued the investigation by determining the causation link between the three variables. Meanwhile, the Dumitrescu and Hurlin panel causality test, created from the Granger causality experiment, was used to obtain the link with the model shown in equation 5.

$$y_{it} = \sum_{j=1}^d \alpha_i^{(d)} y_{i,t-d} + \sum_{j=1}^d \beta_i^{(d)} x_{i,t-d} + \varepsilon_{i,t} \quad (5)$$

4 RESULTS

4.1 Results of Panel Unit Root Tests

The variable's stationarity should be determined before the cointegration test since spurious regression may be obtained with nonstationary data. The techniques utilized include the Levin-Lin-Chu (LLC) and Im-Pesaran-Shin (IPS) tests. The LLC and IPS test analyzes the assumption of similar and multiple autoregressive values, respectively. Table 1 displays the outcomes of these testing, and it can be seen that the data are stationary at the first difference I (1).

Table 1. Panel Unit Root Tests		
Variable	IDN, MYS, PHL	
	LLC	IPS
$\Delta \ln \text{REC}$	0.0001***	0.0013***
$\Delta \ln \text{FD}$	0.000***	0.0034***
$\Delta \ln \text{EG}$	0.9698	0.0052***

Notes: ***, **, * denote significance level of 1%, 5% and 10%, respectively.

4.2 Results of Cointegration Tests

A cointegration test was used to investigate the long-term connection between variables. Furthermore, the Pedroni Cointegration Test was employed, and the results are shown in Table 2. The results showed that the panel data may reject the null hypothesis since it is alternatively supported by the v-Statistics Panel, PP-Statistics Panel, ADF-Statistics Panel, PP-Statistics Group, and ADF-Statistics Group with a significance level of 1% and 10%. Therefore, there is a link between renewable energy consumption, financial development, and economic growth.

4.3 Results of Panel Regression

Following a cointegration test, the data is regressed using ARDL-PMG to determine the long and short term's association between renewable energy consumption (REC), financial development (FD), and economic growth (EG) as reported in Table 3. COINTEQ01 has a negative value with a significance of 10%, and the result showed a long-term link between REC, FD, and EG in Indonesia, Malaysia, and the Philippines.

Table 2. Cointegration tests.

	IDN, MYS, PHL
Panel v-Statistic	2.502541***
Panel rho-Statistic	-0.562063
Panel PP-Statistic	-1.354289*
Panel ADF-Statistic	-1.373223*
Group rho-Statistic	0.092058
Group PP-Statistic	-1.119257*
Group ADF-Statistic	-1.122676*

Notes: ***, **, * denote significance level of 1%, 5% and 10%, respectively.

EG has a positive association with REC in terms of long-term relationships, with every 1% rise in EG growing 1.2 percent REC. Meanwhile, FD has a negative association with REC, with every 1% rise in FVA reducing REC by 1.2%. In addition, EG has a negative connection with REC; therefore, every one percent rise in EG reduces REC by 0.2 percent.

Table 3. Panel Regression

	IDN, MYS, PHL
Long-run Relationship	
$\ln \text{EG}$	1.246307***
$\ln \text{FD}$	-1.201124***

Short-run Relationship	
COINTEQ01	-0.425261*
D(lnEG)	-0.467774
D(lnEG(-1))	-0.649247
D(lnEG(-2))	-0.514134
D(lnEG(-3))	-0.269264***
D(lnEG(-4))	-0.031125
D(lnFD)	0.367806
D(lnFD(-1))	0.648500
D(lnFD(-2))	-0.034353
D(lnFD(-3))	0.158123
D(lnFD(-4))	0.295655
C	-191.7859

Notes: ***, **, * denote significance level of 1%, 5% and 10%, respectively.

4.4 Results of Causality Tests

Following the regression, the causality needs to be tested using the Dumitrescu and Hurlin Causality Test to determine each variable as reported in Table 4. According to the test results, there is a one-way causation link from REC to FD, demonstrating that renewable energy can stimulate the development of the financial sector in the three nations. Furthermore, indications of one-way causation from REC to EG were discovered, indicating that the three nations are developing countries when REC is directly related to EG. Finally, there is long-term one-way causation from EG to FD, showing that economic growth influences REC through the stimulation of financial sector expansion.

Table 4. Causality Test

Null Hypothesis		EGPC-> FDPC	FDPC-> EGPC	RECPC-> FDPC	FDPC-> RECPC	RECPC-> EGPC	EGPC-> RECPC
IDN, MYS, PHL	W-stat	4,30***	0,4	10,9*	0,246	2,89*	0,569
	Causality	Y(Uni)	-	Y (Uni)	-	Y (Uni)	-

Notes: ***, **, * denote significance level of 1%, 5% and 10%, respectively.

5 CONCLUSION

In the short run, economic expansion negatively influences renewable energy consumption; however, it will get stronger and have a positive impact in the long run. The financial development is minor in the short run but may positively impact renewable energy consumption. Therefore, limited financial instruments, such as green bonds and green credits, can help renewable energy projects, as evidenced by the significant negative impact in the long run. According to the causality findings, renewable energy consumption has a unidirectional causal link with financial development and economic growth, implying that it may benefit the financial sector. Meanwhile, economic expansion may fuel financial development to maintain consistent and healthy development through a favorable atmosphere and provide momentum for technological innovation in renewable energy.

REFERENCE

- Alam, M. M., & Murad, M. W. (2020). The impacts of economic growth, trade openness and technological progress on renewable energy use in organization for economic co-operation and development countries. *Renewable Energy*, 145, 382–390.
<https://doi.org/10.1016/J.RENENE.2019.06.054>
- Anton, S. G., & Afloarei Nucu, A. E. (2020). The effect of financial development on renewable energy consumption. A panel data approach. *Renewable Energy*, 147, 330–338.
<https://doi.org/10.1016/J.RENENE.2019.09.005>
- Bamati, N., & Raoofi, A. (2020). Development level and the impact of a technological factor on renewable energy production. *Renewable Energy*, 151, 946–955.
<https://doi.org/10.1016/J.RENENE.2019.11.098>
- BP. (2020). *Statistical Review of World Energy-2021 Indonesia's energy market in 2020*.
- Burakov. (2017). Financial development, economic growth and renewable energy consumption in Russia: A vector error correction approach. *International Journal of Energy Economics and Policy*, 7(6), 39–47.

- Charfeddine, L., & Kahia, M. (2019). Impact of renewable energy consumption and financial development on CO2 emissions and economic growth in the MENA region: A panel vector autoregressive (PVAR) analysis. *Renewable Energy*, 139, 198–213. <https://doi.org/10.1016/J.RENENE.2019.01.010>
- da Silva, P. P., Cerqueira, P. A., & Ogbe, W. (2018). Determinants of renewable energy growth in Sub-Saharan Africa: Evidence from panel ARDL. *Energy*, 156, 45–54. <https://doi.org/10.1016/J.ENERGY.2018.05.068>
- Dogan, E. (2015). The relationship between economic growth and electricity consumption from renewable and non-renewable sources: A study of Turkey. *Renewable and Sustainable Energy Reviews*, 52, 534–546. <https://doi.org/10.1016/J.RSER.2015.07.130>
- Eren, B. M., Taspinar, N., & Gokmenoglu, K. K. (2019). The impact of financial development and economic growth on renewable energy consumption: Empirical analysis of India. *Science of The Total Environment*, 663, 189–197. <https://doi.org/10.1016/J.SCITOTENV.2019.01.323>
- Indonesia, B. (2021). *Indonesia's Economy Building Momentum, Expansion Recorded in Q2/2021*. https://www.bi.go.id/en/publikasi/ruang-media/news-release/Pages/sp_2319221.aspx
- Kutan, A. M., Paramati, S. R., Ummalla, M., & Zakari, A. (2018). Financing Renewable Energy Projects in Major Emerging Market Economies: Evidence in the Perspective of Sustainable Economic Development. *https://doi.org/10.1080/1540496X.2017.1363036*, 54(8), 1762–1778. <https://doi.org/10.1080/1540496X.2017.1363036>
- Lin, B., & Zhu, J. (2019). Determinants of renewable energystechnological innovation in China under CO2 emissions constraint. *Journal of Environmental Management*, 247, 662–671. <https://doi.org/10.1016/J.JENVMAN.2019.06.121>
- Menyah, K., & Wolde-Rufael, Y. (2010). CO2 emissions, nuclear energy, renewable energy, and economic growth in the US. *Energy Policy*, 38(6), 2911–2915. <https://doi.org/10.1016/J.ENPOL.2010.01.024>
- Nguyen, K. H., & Kakinaka, M. (2019). Renewable energy consumption, carbon emissions, and development stages: Some evidence from panel cointegration analysis. *Renewable Energy*, 132, 1049–1057. <https://doi.org/10.1016/J.RENENE.2018.08.069>
- Sadorsky, P. (2009). Renewable energy consumption and income in emerging economies. *Energy Policy*, 37(10), 4021–4028. <https://doi.org/10.1016/J.ENPOL.2009.05.003>
- Wang, B., Wang, Q., Wei, Y. M., & Li, Z. P. (2018). Role of renewable energy in China's energy security and climate change mitigation: An index decomposition analysis. *Renewable and Sustainable Energy Reviews*, 90, 187–194. <https://doi.org/10.1016/J.RSER.2018.03.012>
- Wang, J., Zhang, S., & Zhang, Q. (2021). The relationship of renewable energy consumption to financial development and economic growth in China. *Renewable Energy*, 170, 897–904. <https://doi.org/10.1016/j.renene.2021.02.038>
- Wu, L., & Broadstock, D. C. (2015). Does economic, financial, and institutional development matter for renewable energy consumption? Evidence from emerging economies. *International Journal of Economic Policy in Emerging Economies*, 8(1), 20–39. <https://doi.org/10.1504/IJEPPE.2015.068246>

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The Effect of Investment Growth Rate and Total Revenue on Firm Performance

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ABSTRACT: This study aims at analyzing the effect of the investment growth rate and total revenue on firm performance. This study uses the quarterly financial statements of 360 non-financial sector companies listed on the Indonesia Stock Exchange (IDX) in 2019-2021, with NROA as the dependent variable. The panel data regression results indicate that the investment growth rate and total revenue have a positive and significant effect on firm performance, while the COVID-19 pandemic has a negative and significant effect on firm performance. In addition, the impact of the COVID-19 pandemic on the firm's performance is more pronounced when the investment growth rate and the total revenue decline.

1 INTRODUCTION

COVID-19 pandemic has a serious impact on world public health, the economic sector, transportation, and others. The mobility of the world's population has declined sharply due to quarantine policies, which has weakened purchasing power and resulted in a stagnant economy (Shen et al., 2020). The pandemic also has an impact on the economy in Indonesia, including the decline in people's purchasing power or household consumption which has been the pillar of the economy by 60%, providing uncertainty for a long time. This has been causing investment to weaken, worsen business cessation, and put Indonesia's export activities in a stall due to the economic downturn in various countries, which causes commodity prices to fall.

This research is a development of previous studies, especially the research conducted by Shen et al. (2020), Gu et al. (2020), and Roosdiana (2020). The differences of this study from previous ones are (1) the study was conducted using a sample of non-financial companies listed on the Indonesia Stock Exchange (IDX); (2) the characteristics of the companies used are adjusted to the availability of data and conditions in Indonesia where, for instance, the variable shares owned by the top 10 shareholders being deleted; and (3) research on the COVID-19 pandemic is still rarely done in Indonesia.

2 LITERATURE REVIEW

This study refers to the research conducted by Shen et al. (2020) and aims to study the effect of COVID-19 on firm performance. This study shows that the COVID-19 pandemic has a significant negative impact on the performance of listed Chinese companies with reduced investment growth rates and total revenue. Industries affected by the pandemic, such as tourism and transportation, experienced a significant decline in company performance in the first quarter of 2020 as it affected the production, operations, and sales of these industries as indicated by negative rates of return.

This research also has several other references, such as studies conducted by Gu et al. (2020) and Roosdiana (2020). Gu et al. (2020) found that the decline in business activity of private companies caused by the pandemic was greater than the decline in SOEs and companies with foreign capital. On the other hand, Roosdiana (2020) found that there was no significant difference in the liquidity ratio and profitability ratio before and after the announcement of the first case of COVID-19 in Indonesia, but there was a significant difference in the solvency ratio and activity ratio before and after the notification of the first case of COVID-19 in Indonesia.

2.1 Research Hypothesis

COVID-19 is currently a global emergency, including Indonesia as the affected country. According to real options theory, when uncertainty increases, managers tend to delay investment, which leads to the loss of profitable projects (Ming et al., 2016). The COVID-19 pandemic brings with it external risks that lead managers to increase their cash holdings in the event of an emergency. The existence of cash holdings consumes investment funds and reduces the company's momentum to carry out sustainable development. Based on Maslow's hierarchy of needs, consumers need health and safety more than social contact during this pandemic, which will result in a decline in demand in the short term (Hagerty & Williams, 2020). Due to the quarantine measures, the productivity and revenue of the company decreased, which in turn lowered the company's performance. Based on the above analysis, below hypotheses are formed:

- H1 = The investment growth rate has a positive effect on firm performance.
- H2 = The total revenue has a positive effect on firm performance.
- H3 = The COVID-19 pandemic has a negative effect on firm performance.
- H4 = The impact of the COVID-19 pandemic on firm performance is more pronounced when the firm's investment growth rate is smaller.
- H5 = The impact of the COVID-19 pandemic on firm performance is more pronounced when the firm's total revenue is smaller.

3 METHOD, DATA, AND ANALYSIS

3.1 Sampling

The unit of analysis of this study is the effect of the COVID-19 pandemic on the performance of non-financial sector companies listed on the IDX. The population for this study was all companies of the non-financial sector listed on the IDX from 2019 to 2021, affected by the COVID-19 pandemic. Sampling was carried out using a purposive sampling technique, where the criteria for selecting the sample were as follows: (1) non-financial companies listed on the IDX from 2019 to 2021; (2) companies that publish financial statements on a quarterly basis with the financial year ending on March 31, June 30, September 30, and December 31; and (3) companies that provide data on each variable needed by researchers every year. This study also takes secondary data from external parties, such as Thomson Reuters.

3.2 Measurements

The dependent variable in this study is the performance of companies that use net return on assets (NROA). The independent variables in this study are the COVID-19 pandemic, investment growth rate (CNCA), and revenue. The control variables in this study are company size, leverage, market-to-book ratio, free cash flow, and trade receivable. These variables are explained in the table below:

Table 1. Variable definition

Variables	Definitions
NROA - Net Return on Asset	$\frac{\text{Net profit margin}}{\text{Total asset}}$
Period	The dummy variable of pandemic COVID-19 time; 1 after the pandemic, or 0 otherwise.
CNCA - Investment Growth Rate	$\frac{(\text{The value of net fixed asset current period} - \text{The value of net fixed asset previous period})}{\text{The value of net fixed asset previous period}}$
REV - Total Revenue	The logarithm of total revenue
SIZE - Size of the Company	The logarithm of total asset
LEV - Leverage	Debt to asset ratio (DAR) = $\frac{\text{Total Debt}}{\text{Total Asset}}$
MBR - Market-to-book Ratio	$\frac{\text{Market capitalization}}{\text{Net book value}}$

FCF - Free Cash Flow	EBITDA + depreciation and amortization – working capital increase – capital expenditure
TR – Trade Receivable	Trade Receivable Turnover
	1000

Model 1 is used to test H1 and H4, model 2 is used to test H2 and H5, and model 3 is used to test H3, where the explanation of the components in the model is as follows:

$$NROA_{it} = \beta_0 + \beta_1 CNCA_{it} + \beta_2 Period_{it} + \beta_3 SIZE_{it} + \beta_4 LEV_{it} + \beta_5 MBR_{it} + \beta_6 FCF_{it} + \beta_7 TR_{it} + \beta_8 INDUSTRY + \varepsilon_{i,t} \quad (1)$$

$$NROA_{it} = \beta_0 + \beta_1 REV_{it} + \beta_2 Period_{it} + \beta_3 SIZE_{it} + \beta_4 LEV_{it} + \beta_5 MBR_{it} + \beta_6 FCF_{it} + \beta_7 TR_{it} + \beta_8 INDUSTRY + \varepsilon_{i,t} \quad (2)$$

$$NROA_{it} = \beta_0 + \beta_1 Period_{it} + \beta_2 SIZE_{it} + \beta_3 LEV_{it} + \beta_4 MBR_{it} + \beta_5 FCF_{it} + \beta_6 TR_{it} + \beta_7 INDUSTRY + \varepsilon_{i,t} \quad (3)$$

4 RESULTS AND DISCUSSION

Table 2. Regression results

	Model 1	Model 2	Model 3
Variables	Coefficient Prob	Coefficient Prob	Coefficient Prob
CNCA	0.006326*** 0.0025		
REV		0.013555*** 0.0000	
PERIOD	-0.004704*** 0.0000	-0.003144*** 0.0002	-0.004704*** 0.0000
SIZE	0.009339*** 0.0000	-0.003585** 0.0231	0.009386*** 0.0000
LEV	-0.034423*** 0.0000	-0.040086*** 0.0000	-0.034836*** 0.0000
MBR	0.002461*** 0.0000	0.001923*** 0.0000	0.002461*** 0.0000
FCF	-0.007594** 0.0138	-0.002354 0.4284	-0.007144** 0.0207
TR	0.733153*** 0.0000	0.730289*** 0.0000	0.737083*** 0.0000
Adjusted R ²	0.154742	0.182835	0.152566
Prob (F-statistic)	0.0000	0.0000	0.0000

***, **, and * indicate the statistical significance at the 1%, 5%, or 10% level, respectively

Based on Table 2, the investment growth rate has a positive and significant effect on the company's performance. These results are in line with the research of Shen et al. (2020), where the COVID-19 pandemic has increased uncertainty so that companies must take alternative steps to deal with it, one of which is by reducing their investment activities. The decline in the company's investment activity, in the end, also reduces the company's performance as measured by NROA.

Total revenue has a positive and significant effect on company performance. The results of this study are also in line with the study of Roosdiana (2020), where the activity ratio is used to examine the level of investment made in assets, while income generated by a company has significant differences after and before the COVID-19 pandemic.

The COVID-19 pandemic has a negative and significant impact on company performance. The existence of the COVID-19 pandemic has affected the country's economy. Furthermore, the

decline and various kinds of activities will affect the company's performance, which can be seen from the company's NROA.

Table 3. PERIOD'S coefficient values in model 1 and 2 based on five quantiles according to the order of CNCA and REV values from largest to smallest

Quantile	PERIOD'S coefficient value on model 1	PERIOD'S coefficient value on model 2
5	-0.002532	0.002782
4	-0.004119	0.000310
3	-0.004609	-0.003138
2	-0.003970	-0.006061
1	-0.008633	-0.011047

Based on Table 3, it is discovered that in model 1, the PERIOD value is in accordance with the research hypothesis, indicated by the expected movement and pattern. Although in quantile 2 there is a discrepancy, quantiles 1 and 3-5 show the expected pattern. This is also in line with the panel data regression test conducted to test H1, which confirms a positive and significant relationship to the NROA dependent variable.

Furthermore, in model 2, the PERIOD variable will produce a more positive value if the REV value is greater. This result is in line with the result of the panel data regression test conducted to test H2, which confirms a positive and significant relationship to the NROA dependent variable.

5 CONCLUSIONS

The tests carried out in this study obtained results that are in line with previous research. It is revealed that the level of investment growth and total income has a positive and significant effect on company performance. On the contrary, the COVID-19 pandemic has a negative and significant effect on company performance. Additionally, the PERIOD coefficient value in model 1 and 2 shows the expected movement, where the PERIOD coefficient value will produce a more positive value when the investment growth rate and total income are greater.

This study has limitations in the observation period. It is recommended for further research to conduct a more specific analysis of a particular industry and make comparisons between the most affected and least affected industries. In regards to the results of this study, company managers have been suggested to be able to adapt to an environment full of uncertainty due to the COVID-19 pandemic and try to adjust business strategies appropriately. Lastly, policymakers can make regulations and subsidies to support companies affected by the COVID-19 pandemic.

REFERENCES

- Gu, X., Ying, S., Zhang, W., & Tao, Y. (2020). How Do Firms Respond to COVID-19? First Evidence from Suzhou, China. *Emerging Markets Finance and Trade*, 56(10), 2181–2197.
<https://doi.org/10.1080/1540496X.2020.1789455>
- Hagerty, S. L., & Williams, L. M. (2020). The impact of COVID-19 on mental health: The interactive roles of brain biotypes and human connection. *Brain, Behavior, & Immunity - Health*, 5, 100078.
<https://doi.org/10.1016/j.bbih.2020.100078>
- Ming, Z., Ping, Z., Shunkun, Y., & Ge, Z. (2016). Decision-making model of generation technology under uncertainty based on real option theory. *Energy Conversion and Management*, 110, 59–66.
<https://doi.org/10.1016/j.enconman.2015.12.005>
- Roosdiana. (2020). Dampak Pandemi Covid-19 terhadap Kinerja Perusahaan Property dan Real Estate yang terdaftar di BEI. *Jurnal IKRA-ITH Ekonomika*, 4.
- Shen, H., Fu, M., Pan, H., Yu, Z., & Chen, Y. (2020). The Impact of the COVID-19 Pandemic on Firm Performance. *Emerging Markets Finance and Trade*, 56(10), 2213–2230.
<https://doi.org/10.1080/1540496X.2020.1785863>

Analysis of Factors Affecting Equity Mutual Funds Performance in Indonesia

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ABSTRACT: This study aims at analyzing factors affecting equity mutual fund performance using The Fama-French Three-Factor Model that includes market-risk, size, and book-to-market factor; and The Fama-French Five-Factor Model that incorporates two additional factors, namely profitability and investment factor. This study also investigates whether The Five-Factor Model explains the mutual fund performance better than The Three-Factor Model in Indonesia. The Robust Least Squares method was employed to analyze the daily data of 109 actively managed Equity Mutual Fund, examined quarterly during January 2016-June 2021. The result indicates that the market-risk factor is the only factor affecting the portfolios performance of equity mutual funds in Indonesia. The value factor becomes redundant in the presence of profitability and investment factor. Although the Adjusted R^2 shows that The Five-Factor Model is superior compared to The Three-Factor Model, neither profitability nor investment factor is significantly relevant in explaining equity mutual fund performance in Indonesia.

1 INTRODUCTION

Currently, mutual funds have become a strategic investing option, particularly for investors who lack the time or ability to calculate their investment risk and return. Investing in mutual funds is beneficial for investors who have minimal funds to invest in a diversified securities portfolio to minimize the risk. According to data collected by The Financial Services Authority in Indonesia, in early 2016, equity mutual funds provided the most significant contribution of 109 trillion rupiah (39.37%) in Net Asset Value compared to other types of mutual fund products, with a total amount of 277 trillion rupiah. The numbers keep increasing until mid-2021 with the contribution of 122 trillion rupiah. Equity Mutual fund performance affected by several factors. In the last few decades, various models have been used and developed to evaluate the portfolio performance. The modern asset pricing model develop by Fama and French (1993) that analyze the market factor, size factor, and value factor on affecting equity excess return called as The Three-Factor Model. However, several studies discover that the factors used in this model still cannot fully explain the cross-section variation of equity return. Based on some strong empirical evidence, Fama and French (2015) added two more factor, which are profitability and investment factors to their model - called as The Fama-French Five-Factor Model. Some empirical evidence using this model shows insignificant effect on profitability and investment factor in some emerging Asian Market (Zaremba and Czapkiewicz, 2017), while in other emerging countries in Latin America & European market, The Five-Factor Model outperform The Three-Factor Model. Therefore, it is still interesting to observed in term of Indonesian context. The purpose of this study seeks to analyze whether market risk, size, value, profitability and investment factors show a significant effect on the performance of equity mutual funds in Indonesia by using the two proposed model by Fama and French. This study is also aim at examining the ability of the two empirical model in explaining the performance of equity mutual funds in Indonesia.

2 LITERATURE REVIEW

Fama and French (1993) Three-Factor Model examine the market factor, size factor, and value factor. Market factor (Mkt) explained the relationship between the average equity return and market risk factors. Small Minus Big (SMB) or size factor showed that the small-capitalization portfolio tends to see higher returns than the large-capitalization portfolio. Value factor or High

Minus Low (HML) used to determine how big value premium is obtained by investors by investing in companies with high book-to-market values. Some studies indicate that The Fama-French Three-Factor model is still probably incomplete to explain the risk-return relationship. Titman, Wei and Xie (2004) suggest that equity return is also affected by the investment choice of a firm. Novy-Marx (2013) found that profitability factor is also strongly related to average returns. They suggest that equity returns can be affected by the difference between firms with robust profitability and firms with weak profitability.

Fama and French (2015) added two new variables to their previous model: profitability factor and investment patterns factor, known as the Fama-French Five-Factor Model. Profitability is proxied by Robust Minus Weak (RMW) is the difference between the average return on portfolios that have high operating profitability with the average return on portfolios that have low operating profitability. On the other hand, the investment factor is proxied by Conservative Minus Aggressive (CMA) that calculates the difference between the average low corporate returns with a low level of investment and average high corporate return with a high level of investment. Fama and French (2017) conducted an international test of The Three-Factor and Five-Factor Models on a sample of 23 developed countries divided into four regions. The findings show that the five-factor model better describes the average return provided by absorbing value, profitability and investment factors. An empirical study with a Five-Factor Model conducted by Nguyen, Ulku and Zhang (2015) in the Vietnamese capital market found that The Fama and French Five-Factor Model was better at explaining equity returns compared to the traditional CAPM model and the three-factor model. The evidence regarding factors examined in Fama-French model tends to show inconsistent findings, especially in emerging Asian countries.

3 METHODOLOGY

Following Fama and French (2017), this study employs time-series regression. The Secondary data were obtained from Bloomberg for the Net Asset Value of daily equity mutual fund, and Kenneth French data library for the Asia Pacific excluding Japan Fama-French factors (market-risk, size, value, profitability, and investment) from the period of January 2016 to June 2021. The samples were collected using the purposive sampling method, with the criteria for selecting sample are actively managed equity mutual fund between the period observation that have a complete historical data of daily Net Asset Value. A total of 109 equity mutual fund are meet the criteria for this study. This study employs Robust Least Square to measure the regression of The Three-Factor Model and The Five-Factor model. Each model was examined quarterly during the period. Coefficient of determination test is used to determine which model is superior compare to the other. The data were analyzed using EViews 9.0 software. The regression model of Three-Factor Model and Five-Factor Model show respectively on Equation 1 and Equation 2 below:

$$R_{i,t} - R_{f,t} = \alpha + \beta_1(R_m - R_f)_{i,t} + \beta_2SMB_{i,t} + \beta_3HML_{i,t} + e_{i,t} \quad (1)$$

$$R_{i,t} - R_{f,t} = \alpha + \beta_1(R_m - R_f)_{i,t} + \beta_2SMB_{i,t} + \beta_3HML_{i,t} + \beta_4RMW_{i,t} + \beta_5CMA_{i,t} + e_{i,t} \quad (2)$$

where $R_{i,t} - R_{f,t}$ = excess return of the equity mutual fund; $(R_m - R_f)_{i,t}$ = market factor; $SMB_{i,t}$ = size factor; $HML_{i,t}$ = value factor; $RMW_{i,t}$ = profitability factor; $CMA_{i,t}$ = investment factor; α = intercept; and β is the degree of change for every 1-unit of change in the predictor variable.

4 RESULT AND DISCUSSION

Table 1 list the regression result of The Three-Factor Model on equity mutual fund in Indonesia, examined quarterly for the period January 2016 – June 2021, where excess return of equity mutual fund is the dependent variable, and the independent variables are market, size, and value factor. Table 2 list the regression result of The Five-Factor Model, where the independent variables are market, size, value, profitability, and investment factor.

Table 1. Result of The Three-Factor Model.

		Coefficient					Adj R _w -Squared
		Intercept	Mkt	SMB	HML		
2016	Q1	0,0007	0,0064 ***	0,0017	0,0028		0,3992
	Q2	0,0005	0,0050 ***	0,0032	0,0029		0,1678
	Q3	-0,0014	0,0091 ***	0,0012	0,0083 **		0,3055
	Q4	0,0001	0,0067 ***	0,0027	0,0016		0,2193
2017	Q1	0,0001	0,0014	0,0011	0,0065 ***		0,1525
	Q2	0,0001	0,0003	-0,0003	0,0014		0,0088
	Q3	-0,0007	0,0035	-0,0009	0,0015		0,0925
	Q4	0,0009	0,0048 ***	0,0091 ***	0,0016		0,2364
2018	Q1	-0,0001	0,0060 ***	-0,0015	-0,0044		0,4651
	Q2	-0,0014	0,0108 **	0,0060	0,0069		0,1468
	Q3	0,0017	0,0069 *	0,0093	0,0079 *		0,1086
	Q4	0,0022	0,0100 ***	0,0067	0,0035		0,2864
2019	Q1	-0,0001	0,0012	-0,0076	0,0056		0,2350
	Q2	0,0000	0,0064	0,0021	0,0018		0,1118
	Q3	-0,0007	0,0097 ***	0,0088	0,0016	***	0,3776
	Q4	-0,0003	0,0050	0,0017	0,0008		0,1057
2020	Q1	-0,0001	0,0136 ***	0,0120	0,0080 ***	***	0,7931
	Q2	-0,0006	0,0111 ***	0,0027	0,0077 **		0,4955
	Q3	-0,0005	0,0079 ***	0,0013	0,0043		0,2002
	Q4	0,0009	0,0125 ***	0,0077 *	0,0087 ***		0,3548
2021	Q1	-0,0025	0,0083 ***	0,0071 **	0,0022	**	0,2782
	Q2	-0,0010	0,0086 ***	0,0080 **	0,0057 *		0,2633

***, ** and * denote significance at the 1%, 5% and 10%, respectively.

Table 2. Result of The Five-Factor Model.

		Coefficient							Adj R _w -Squared
		Intercept	Mkt	SMB	HML	RMW	CMA		
2016	Q1	0,0014	0,0062 ***	0,0011	-0,0001	-0,0019	-0,0043		0,4037
	Q2	0,0007	0,0050 **	0,0022	0,0020	-0,0022	0,0026		0,1725
	Q3	-0,0007	0,0092 **	-0,0003	0,0024	-0,0015	0,0103		0,3305
	Q4	-0,0002	0,0073 ***	0,0032	-0,0016	-0,0012	0,0076		0,2708
2017	Q1	0,0001	0,0038	0,0033	-0,0006	-0,0072 *	0,0066 *		0,2386
	Q2	0,0005	-0,0008	0,0015	0,0065	0,0079	0,0023		0,0839
	Q3	-0,0008	0,0032	-0,0022	-0,0020	-0,0053	0,0004		0,1243
	Q4	0,0009	0,0044 ***	0,0084 ***	-0,0020	-0,0039	0,0017		0,2694
2018	Q1	0,0000	0,0059 ***	-0,0024	-0,0049	-0,0014	0,0002		0,4572
	Q2	-0,0013	0,0119 **	0,0093	0,0084	0,0024	-0,0001		0,1562
	Q3	0,0003	0,0078 *	0,0052	0,0098	0,0051	-0,0159 ***		0,2509
	Q4	0,0018	0,0074 **	0,0041	-0,0056	-0,0103	-0,0034		0,3347
2019	Q1	0,0000	0,0015	-0,0073	0,0039	-0,0023	-0,0007		0,2344
	Q2	-0,0001	0,0082 **	0,0039	0,0015	0,0001	0,0062		0,1468
	Q3	-0,0009	0,0091 ***	0,0090 **	-0,0004	-0,0027	-0,0037		0,3802
	Q4	-0,0001	0,0053	0,0017	-0,0008	-0,0009	0,0031		0,1137
2020	Q1	-0,0014	0,0139 ***	0,0082 ***	-0,0104 *	-0,0191 ***	0,0067		0,8155
	Q2	0,0001	0,0129 ***	0,0033	-0,0063	-0,0138 *	0,0104		0,5404
	Q3	-0,0004	0,0082 ***	0,0005	0,0014	-0,0036	0,0026		0,2086
	Q4	0,0010	0,0110 ***	0,0069	0,0114 ***	0,0079	-0,0017		0,4027
2021	Q1	-0,0026	0,0083 ***	0,0071 **	0,0021	-0,0007	-0,0013		0,2797
	Q2	-0,0011	0,0088 ***	0,0096 **	0,0028	0,0034	0,0038		0,3229

***, ** and * denote significance at the 1%, 5% and 10%, respectively.

The performance of equity mutual funds in Indonesia tends to show positive intercept value during 2016-2018, meanwhile, in 2019-June 2021 it tends to show a negative intercept value. Based on quarterly analysis using 1%, 5% and 10% significant level, both Three-Factor model and Five-Factor model show that the coefficient of the market factors (Mkt) tends to show positive and significant effects on affecting the performance of equity mutual funds from January 2016 until June 2021. The coefficient of the size factor (SML) and the value factor (HML) tends to

show positive coefficient value but insignificant on affecting the performance of equity mutual funds. The positive coefficient value of the SML and HML means that the equity mutual funds in Indonesia were mostly formed by small-capitalization stock and value stock. In the Five-Factor model, the value factor (HML) become redundant in the presence of profitability and investment factor. The use of Three-Factor model in explaining the performance of equity mutual fund performance in Indonesia is relevant only in 2020 Q1, 2020 Q4 and 2021 Q2. For the Five-Factor model, the profitability (RMW) and investment factor (CMA) tends to shows a coefficient value that insignificant on affecting the excess return of the equity mutual fund in Indonesia. This show that the additional variables do not seem to have explanatory power to the performance of equity mutual funds in Indonesia. To examine which model is outperform the other, the coefficient of determination is generally seen based on the value of R^2 or Adjusted R^2 . However, Renaud and Victoria-Feser (2010) found that this statistical test has a bias. Their study developed Rw^2 that fulfills the objectives of consistency, efficiency, and robustness. and is relatively unbiased. As we can see on The Table 1 and Table 2 The Five-Factor Model in most of observation period show greater Rw^2 value compared to The Three-Factor model. So based on the robust regression result it showed that the Five-Factor Model was superior compare to the Three-Factor Model.

5 CONCLUSION

This research can be used by investors in providing an overview of equity mutual funds in Indonesia, seen through the factors that can affect the performance and also the characteristics of equity mutual funds in general. Using The Fama-French Three-Factor Model and Five-Factor Model in examining factors affecting equity mutual fund performance, this study concludes that the market factor is the only factor affecting the performance of equity mutual funds in Indonesia in January 2016 - June 2021. Even though the size and value factor show positive coefficient value, investors would perceive the market risk factor more accurately on predicting the return of equity mutual funds in Indonesia. Although the Coefficient of Determination shows that The Five-Factor Model is superior compared to the Three-Factor Model, evidence found that neither profitability nor investment factor is giving additional information in explaining equity mutual fund performance in Indonesia.

REFERENCES

- Fama, E. F. and French, K. R. (1993) 'Common Risk Factors in The Return on Stock and Bonds', *Journal of Financial Economics*, 33(1), pp. 3-56.
- Fama, E. F. and French, K. R. (2015) 'A five-factor asset pricing model', *Journal of financial economics*, 116(1), pp. 1-22.
- Fama, E. F. and French, K. R. (2017) 'International tests of a five-factor asset pricing model', *Journal of financial Economics*, 123(3), pp. 441-463.
- Nguyen, N., Ulku, N. and Zhang, J. (2015) 'Fama–French Five-factor Model in Vietnam: New Evidence on State Ownership'.
- Novy-Marx, R. (2013) 'The other side of value: The gross profitability premium', *Journal of financial economics*, 108(1), pp. 1-28.
- Renaud, O. and Victoria-Feser, M.-P. (2010) 'A robust coefficient of determination for regression', *Journal of Statistical Planning and Inference*, 140(7), pp. 1852-1862.
- Titman, S., Wei, K. J. and Xie, F. (2004) 'Capital investments and stock returns', *Journal of financial and Quantitative Analysis*, 39(4), pp. 677-700.
- Zaremba, A. and Czapkiewicz, A. (2017) 'Digesting anomalies in emerging European markets: A comparison of factor pricing models', *Emerging aMarkets Review*, 31, pp. 1-15.

Turnover Intention in Generation Z: The Impacts of Perceived Organizational Prestige, Organizational Identification, Quarter-Life Crisis, and the Mediating Role of Psychological Empowerment

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ABSTRACT: With the emergence of Generation Z in the workplace and the issues of turnover intention that become challenges to management, this research examines the behaviors of Generation Z workers in Indonesia and aims to identify the relationships between perceived organizational prestige, organizational identification, a quarter-life crisis with turnover intention, as well as mediating role of psychological empowerment. The data were collected through online surveys from 292 full-time Generation Z workers in Indonesia and analyzed using structural equation modeling (SEM). This research discusses the implications of the findings and is expected to provide positive contributions to managerial practices and strategic decisions making.

1 INTRODUCTION

Along with the increasing rate of employment and work opportunities, employee turnover becomes a big challenge for companies (Kang & Sung, 2019). In the 21st century, the main reasons behind employee turnover include employees' characteristics and personalities that have changed (Lee et al., 2018). It is common for employees to have intentions and thoughts that will lead to actual turnover, which is termed turnover intention. Therefore, management needs to find strategies in order to retain employees, especially individuals with skills and potentials which fit the organizational expectations. Perceived organizational prestige is quite often discussed in management literature. The concept denotes an employee's perspective or understanding of how outsiders view the company where they work. In addition, organizational identification refers to situations where individuals or employees have a sense of oneness with the organization (Zhang & Li, 2016). Employees who identify with their organizations will likely feel more empowered due to the alignment between themselves and the organizations. Empowerment creates a better working environment for both employees and organizations (Bartram et al., 2021). It is important to understand employees' expectations as well as their characteristics. There is a great possibility that individuals in different age groups possess unique and different characteristics that will influence the working environment. Individuals will experience several phases and transitions during their life. There is a transitional phase phenomenon known as the quarter-life crisis, and it can be observed through relationship conflicts, job dissatisfaction, and work pressure (Robinson, 2019). In a working environment context, changing jobs would be common between individuals in the quarter-life crisis phase where individuals are considered having doubts in finding themselves, self-expectation, and many uncertainties (Hosie, 2017). In the next few years, there is a high probability that the number of Generation Z workers will increase. Most individuals in Generation Z have dilemmas in finding or being in a job that fits their expectations. Thus, this research aims to identify the effects of perceived organizational prestige, organizational identification, quarter-life crisis, as well as the mediating role of psychological empowerment on turnover intention of Generation Z workers in Indonesia.

2 LITERATURE REVIEW

Employees who perceive that the organizations they work for are considered prestigious possess higher self-esteem due to their association with the organizations in addition to feeling inspired

and recognizing their value (Rathi & Lee, 2015). Organizational identification also shows engagement in psychological aspects between employees and organization where employees feel a cognitive bond by defining themselves and the organization as one social entity (Karanika-Murray et al., 2015). Employees tend to have responsibilities in providing a return of positive engagement to their organizations when they have been supported by socio-emotional needs such as protection, support, and proper treatment (He & Brown, 2013). Therefore, the following hypotheses were developed:

H1: Perceived Organizational Prestige significantly and positively affects Psychological Empowerment
 H2: Organizational Identification significantly and positively affects Psychological Empowerment

Psychologically, empowered employees have good initiatives, trust, and a positive attitude towards their working environment, which affect organizational effectiveness and success. In addition, the bonds and attachment level with their organizations will be higher, thus maintaining their intentions to contribute and stay within the organizations (Akgunduz & Bardakoglu, 2017). In relation to the social identity theory, perception of prestige affects the attachment between individuals and their communities or organizations (Peasley et al., 2018). The more employees identify with their organization, the more likely they feel like part of the organization and create a lower level of turnover intentions (Boon et al., 2021). If employees are more aligned with their organizations, it will also increase employees' efforts and result in better impacts towards the organizations to achieve organizational goals (Nowak, 2021). Organizational prestige perceived by employees boosts their confidence and self-esteem that leads to recognition of their capabilities and an increase in passion. Therefore, the more empowered employees are, the better they perform as required by the organization (Rathi & Lee, 2015). Thus, the following hypotheses were developed:

H3: Psychological Empowerment significantly and negatively affects Turnover Intention
 H4: Perceived Organizational Prestige significantly and negatively affects Turnover Intention
 H5: Organizational Identification significantly and negatively affects Turnover Intention
 H6: Psychological Empowerment significantly and positively mediate the relationship between Perceived Organizational Prestige and Turnover Intention
 H7: Psychological Empowerment significantly and positively mediate the relationship between Organizational Identification and Turnover Intention

A quarter-life crisis is illustrated by individuals' psychological well-being and the depression level, where employees with high psychological well-being will be more productive and contribute to achieving organizational goals and strategies. Meanwhile, employees with a high depression level create a decline in employee performance and efficiency during work (Robinson, 2019). Employees who feel the quarter-life crisis symptoms are considered to feel confused and insecure about their work as well as uncomfortable to continue working in their current place (Yeler et al., 2021). Therefore, the following hypothesis was developed:

H8: Quarter-Life Crisis significantly and positively affects Turnover Intention

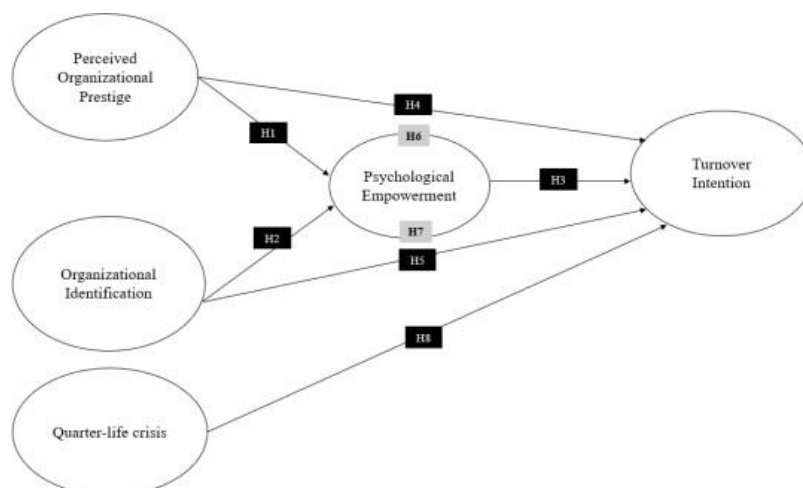


Figure 1. Research Model

3 RESEARCH METHOD

A quantitative method was used in this research, and the data were collected by distributing online questionnaires. The data were then analyzed using the Likert scale 1-7 (1 = strongly disagree; 7= strongly agree). This study was conducted in Indonesia, and non-probability sampling with a convenience sampling approach was adopted. The sample criteria include full-time workers and a maximum of 26 years of age. All 292 respondents were able to complete the survey and were eligible to be used in this research.

4 RESULTS

The results of this research showed that all items used in the questionnaires were valid and reliable. In addition, the research model met the condition of the goodness-of-fit criteria. This research employed structural equation modeling (SEM) to test the hypotheses using AMOS 20. Perceived organizational prestige ($C.R = 7.367, p = 0.000$) and organizational identification ($C.R = 7.443, p = 0.000$) showed significant and positive impacts in relation to the psychological empowerment, which support H1 and H2. Perceived organizational prestige ($C.R = 7-2.703, p = 0.007$), organizational identification ($C.R = -2.175, p = 0.030$), and psychological empowerment ($C.R = -2.423, p = 0.015$) showed significant and negative impacts in relation to the turnover intention, which support H3, H4, and H5. A quarter-life crisis ($C.R = 4.258, p = 0.000$) showed significant and positive impacts in relation to the turnover intention, which supports H8. The results also showed that the mediation effects of psychological empowerment to the relationships between perceived organizational prestige and organizational identification with turnover intention were negatively significant ($C.R = -2.369, p = 0.018$ and $C.R = -2.325, p = 0.021$ respectively), which supports H6 and H7.

5 CONCLUSION AND DISCUSSION

The results of this research showed that the Generation Z workers in Indonesia that have high perceived organizational prestige and organizational identification will feel more psychologically empowered and reduce their turnover intention. Generation Z respects inclusion as well as participation at work. Therefore, highly prestigious organizations are perceived as good for employees' career paths, and the existence of organizational identification creates alignment between workers and organizations. These will lead to more psychologically empowered employees, which enable them to return rewards by staying and providing a contribution to the organizational objectives instead of having turnover intention. On the other hand, the impact of the low quarter-life crisis experienced by the workers that is shown by high psychological well-being and low depression level will decrease their turnover intention in which indicates positive

relationships. The findings are expected to be used by management in order to retain employees in the organization by considering strategies that can be taken along with the emergence of generation Z workers' new characteristics.

REFERENCES

- Akgunduz, Y., & Bardakoglu, O. (2017). The impacts of perceived organizational prestige and organization identification on turnover intention: the mediating effect of psychological empowerment. *Current Issues in Tourism*, 20(14), 1510–1526. <https://doi.org/10.1080/13683500.2015.1034094>
- Bartram, T., Cooper, B., Cooke, F. L., & Wang, J. (2021). High-performance work systems and job performance: the mediating role of social identity, social climate and empowerment in Chinese banks. *Personnel Review*, 50(1), 285–302. <https://doi.org/10.1108/PR-08-2019-0425>
- Boon, J., Wynen, J., & Kleizen, B. (2021). What happens when the going gets tough? Linking change scepticism, organizational identification, and turnover intentions. *Public Management Review*, 23(7), 1056–1080. <https://doi.org/10.1080/14719037.2020.1722208>
- He, H., & Brown, A. D. (2013). Organizational identity and organizational identification. *Group & Organization Management*, 38(1), 3–35. <https://doi.org/10.1177/1059601112473815>
- Hosie, R. (2017, November 15). The age you're most likely to have a quarter-life crisis: The average quarter-life crisis lasts 11 months. *The Independent*. <https://www.independent.co.uk/life-style/quarter-life-crisis-age-most-likely-job-work-relationships-linked-in-career-house-money-a8054616.html>
- Kang, M., & Sung, M. (2019). To leave or not to leave: the effects of perceptions of organizational justice on employee turnover intention via employee-organization relationship and employee job engagement. *Journal of Public Relations Research*, 31(5–6), 152–175. <https://doi.org/10.1080/1062726X.2019.1680988>
- Karanika-Murray, M., Duncan, N., Pontes, H. M., & Griffiths, M. D. (2015). Organizational identification, work engagement, and job satisfaction. *Journal of Managerial Psychology*, 30(8), 1019–1033. <https://doi.org/10.1108/JMP-11-2013-0359>
- Lee, T. W., Hom, P., Eberly, M., & Li, J. (Jason). (2018). Managing employee retention and turnover with 21st century ideas. *Organizational Dynamics*, 47(2), 88–98. <https://doi.org/10.1016/j.orgdyn.2017.08.004>
- Nowak, R. (2021). Structural empowerment and serving culture as determinants of organizational identification and turnover intention. *Management Research Review*, 44(2), 318–340. <https://doi.org/10.1108/MRR-02-2020-0064>
- Peasley, M. C., Coleman, J. T., & Royne, M. B. (2018). Charitable motivations: the role of prestige and identification. *The Service Industries Journal*, 38(5–6), 265–281. <https://doi.org/10.1080/02642069.2017.1370457>
- Rathi, N., & Lee, K. (2015). Retaining talent by enhancing organizational prestige. *Personnel Review*, 44(4), 454–469. <https://doi.org/10.1108/PR-05-2013-0070>
- Robinson, O. C. (2019). A longitudinal mixed-methods case study of quarter-life crisis during the post-university transition: Locked-out and locked-in forms in combination. *Emerging Adulthood*, 7(3), 167–179. <https://doi.org/10.1177/2167696818764144>
- Yeler, Z., Berber, K., Özdoğan, H. K., & Çok, F. (2021). Quarter life crisis among emerging adults in turkey and its relationship with intolerance of uncertainty. *Turkish Psychological Counseling and Guidance Journal*, 11(61), 245–262. <http://turkpdrdergisi.com/index.php/pdr/article/view/937>
- Zhang, Y., & Li, Y. (2016). The crowding-out effect of the extrinsic motivation: An empirical study on the turnover intention of members of the youth social organization. *SHS Web of Conferences*, 25, 02015. <https://doi.org/10.1051/shsconf/20162502015>

The Impact of R&D Investments on Financial Performance of Pharmaceutical Companies: Accounting for Intangibles

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ABSTRACT: The emergence of the COVID-19 pandemic in early 2020 has made the pharmaceutical industry a major player in world recovery efforts. The pharmaceutical industry has long been dependent on intangible assets, one of which is its R&D. Although the importance of this intangible asset is undeniable, its accounting format in financial reports has never been conclusively established. With the usage of data derived from 46 top pharmaceutical companies globally, the relationship between R&D investments on current and future financial performance of pharmaceutical companies via its proxies; net income, EPS, ROE, and ROA, and 2-set regressions was investigated. The number of R&D investments was found to be positively linked to the financial performance of each company. COVID-19 did not affect the financial performance of the companies significantly. This study thus justified that R&D expenditure and efforts should be included in financial reports, clearing up the misconceptions of including intangible assets in a company's financial statements.

1 INTRODUCTION

Intangible assets have been considered one of the most prominent factors in a firm's success and longevity. Patents, brand name, reputation, employees, and various human resources in a firm are a few of the many intangible assets that determine not only the value of the firm but also its performance. It has been proven that firms that are heavily investing in intangible assets perform better than those that do not. In addition, in some industries, investing in quality intangible assets positively relates to firm overall performance and growth, despite other determining factors such as firm age, size, etc.

The investigation into the major impact of investing in intangible assets raises the question regarding how such investments are written in the company's annual financial statements. Hitherto, there is confusion on whether the intangible investments are worth mentioning in the financial statements. Thus, this study was conducted in order to prove that R&D investments indeed have a significant impact on pharmaceutical companies' present and future financial performance. In addition, it was to provide suggestions on how investments on intangible assets should be written or stated accordingly in financial statements due to their significance to current and future financial performance. In addition, this study aims to observe the relationship between the occurrence of COVID-19 pandemic and the financial performance of various global pharmaceutical companies.

2 LITERATURE REVIEW

2.1. *Intangible Assets, Significance, and Recognition in Financial Statements*

Intangible assets have been considered a prominent aspect of a company since the 20th century, and their importance will continue to rise as time goes (Lev, 2005). In addition, they have been considered one of the key resources and drivers of organization performance, which is important for a company's value creation (Kumar, 2016), and companies are heavily reliant on their intangible assets due to their significance to company profitability, value, and continuity. Intangible investments are also the main value creators for many companies and economic sectors (Zéghal & Maaloul, 2011)

Despite their value and prominence, intangible assets are mostly not recognized in financial statements due to various reasons including their identification, recognition, and measurement.

This concern is further legitimized by the fact that International Accounting Standards (IAS), stated in IAS 38; that an intangible asset is only stated in financial statements if it is identifiable, controlled by the firm, and has future economic value or benefits that can be measured reliably, this could not be applied, especially now when COVID-19 strikes and the rate of uncertainty soars even further. Tahat et al. (2018) stated in their study that two types of intangibles; R&D and GW should be written in financial statements; not only that they are less problematic among other types of intangible assets, but also that their inclusion within financial statements can provide a potential for investors.

2.2. Pharmaceutical Industry and their R&D Department

Pharmaceuticals are a group of emergent organic compounds that have contributed to enhancing the quality of life, and the industry itself is responsible for the development, production, and marketing of branded and generic pharmaceuticals (Song et al., 2010). The pharmaceutical industry market has grown for an astounding 5.8% since 2017 and is expected to grow further (González Peña et al., 2021). It is not unknown that Pharmaceutical Industry is one of many industries that heavily reliant on its intangible assets, especially its R&D, because it is the main activity of the companies within the industry in order to not only stay relevant in the market but also to provide the drug and healthcare products for ensuring the quality of life of many (González Peña et al., 2021). R&D has been used as a representative proxy of innovation activities (Chung et al., 2019), a highly integral activity in the pharmaceutical industry as the companies within it are required to innovate and find a new target or new diseases of which medication to treat such diseases are still rare, hence able to gain competitive advantage. Furthermore, R&D itself is a department, which is traditionally viewed as an input into knowledge creation (Koutroumpis et al., 2020).

3 METHODOLOGY

Panel Data Regression was utilized in this study, and the EViews10 was used for both observation of the relationship between R&D investments to the current and future financial performance of various pharmaceutical companies. The data used in this study were obtained and provided by EIKON: Thompson Reuters from the top 46 global pharmaceutical companies based on their net income in each year, with total observation of 230. The data were then regressed using the Eviews10 program along with model determination and result interpretation. COVID-19 was included as a dummy variable as it only occurs at the end of the time observation, which was the year 2020. The COVID-19 virus was discovered in late December of 2019 in Wuhan, China, and the number of cases began to rise in January 2020, according to WHO (World Health Organization) data, The models are as follows: with model (1) until (4) were used for the observation of the relationship between R&D expense and current financial performance, while model (5) until (8) observed the relationship between the expense and future financial performance, the models are as follows:

- a. $Net\ Income_{it} : a_0 + \beta_1 R\&D_{it} + \beta_2 Lev_{it} + \beta_3 Size_{it} + \beta_4 Liq_{it} + \beta_5 Covid_{it} + \varepsilon_{it}$
- b. $EPS_{it} : a_0 + \beta_1 R\&D_{it} + \beta_2 Lev_{it} + \beta_3 Size_{it} + \beta_4 Liq_{it} + \beta_5 Covid_{it} + \varepsilon_{it}$
- c. $ROA_{it} : a_0 + \beta_1 R\&D_{it} + \beta_2 Lev_{it} + \beta_3 Size_{it} + \beta_4 Liq_{it} + \beta_5 Covid_{it} + \varepsilon_{it}$
- d. $ROE_{it} : a_0 + \beta_1 R\&D_{it} + \beta_2 Lev_{it} + \beta_3 Size_{it} + \beta_4 Liq_{it} + \beta_5 Covid_{it} + \varepsilon_{it}$
- e. $Net\ Income_{it} : a_0 + \beta_1 R\&D_{it-1} + \beta_2 Lev_{it-1} + \beta_3 Size_{it-1} + \beta_4 Liq_{it-1} + \varepsilon_{it}$
- f. $EPS_{it} : a_0 + \beta_1 R\&D_{it-1} + \beta_2 Lev_{it-1} + \beta_3 Size_{it-1} + \beta_4 Liq_{it-1} + \varepsilon_{it}$
- g. $ROA_{it} : a_0 + \beta_1 R\&D_{it-1} + \beta_2 Lev_{it-1} + \beta_3 Size_{it-1} + \beta_4 Liq_{it-1} + \varepsilon_{it}$
- h. $ROE_{it} : a_0 + \beta_1 R\&D_{it-1} + \beta_2 Lev_{it-1} + \beta_3 Size_{it-1} + \beta_4 Liq_{it-1} + \varepsilon_{it}$

4 RESULTS AND DISCUSSION

4.1. Impact to Current Financial Performance

Table 1. Result of Panel Regression Analysis on the Relationship between R&D Expense and Various Proxies of Firm's Current Financial Performance.

	<i>Net Income</i>	<i>ROA</i>	<i>ROE</i>	<i>EPS</i>
<i>C</i>	-9.72E+08	0.5521***	1.1986***	-1.2237
	0.7375	0	0	0.7941
<i>R&D Expense</i>	1.5561***	1.2E-11 ***	3.23E-11 ***	4.72E-10 ***
	0	0.0002	0	0.0002
<i>Leverage</i>	1.18E+08	0.0005	0.3008***	-0.0283
	0.3588	0.9297	0	0.8932
<i>Size</i>	2.62E+07	-0.023***	-0.0545***	0.1161
	0.8428	0.0002	0	0.5899
<i>Liquidity</i>	1.49E+08	0.0078***	0.022***	0.0548
	0.6111	0.0032	0.0001	0.5517
<i>COVID-19</i>	-1.49E+07	-0.0058	-0.0123	0.3534***
	0.8886	0.2301	0.264	0.0437
<i>Observation</i>	227	227	227	227
<i>Number of Companies</i>	46	46	46	46
<i>R-squared</i>	0.7635	0.1045	0.7034	0.1458
<i>Adjusted R-Squared</i>	0.7582	0.0842	0.6967	0.1265
<i>SE of Regression</i>	6.20E+08	0.0289	0.0670	1.0128
<i>F-Statistic</i>	142.7118	5.1564	104.8344	7.5459
<i>Prob (F-Statistic)</i>	0	0.00017	0	0.000001
<i>Mean Dependent var.</i>	5.40E+08	0.0257	0.0518	0.4968
<i>S.D Dependent Var</i>	1.26E+09	0.0302	0.1215	1.0830
<i>Sum Squared Resid.</i>	8.49E+19	0.1842	0.9902	226.6887

(Source: Author's own)

***: Significant at the 1% level

The table above shows that the amount of R&D expense positively affected all the indicators of the pharmaceutical companies' financial performance (Net Income, ROA, ROE, and EPS). With this, in general, R&D amount affected the companies' current financial performance in a positive manner.

4.2. Impact to Future Financial Performance

Table 2. Result of Panel Regression Analysis on the Relationship between R&D Expense and Various Proxies of Firm's Current Financial Performance.

	<i>Net Income (t0)</i>	<i>ROA (t0)</i>	<i>ROE (t0)</i>	<i>EPS (t0)</i>
<i>C</i>	-4.32E-09	0.4628**	0.6336***	5.5258
	0.2266	0.0002	0.0991	0.2921
<i>R&D Expense (t-1)</i>	1.5308***	9.15E-12 **	2.84E-11 ***	6.81E-10 ***
	0	0.0098	0.0062	0
<i>Leverage (t-1)</i>	2.38E+08	0.0028	0.1081***	0.2692
	0.1517	0.5996	0	0.2086
<i>Size (t-1)</i>	1.82E+08	-0.0164**	-0.0211	-0.1841
	0.2637	0.0032	0.2223	0.4445
<i>Liquidity (t-1)</i>	2.94E+07	-0.0007	-0.0093	-0.0285
	0.7141	0.797	0.3629	0.7019
<i>Observation</i>	181	181	181	181
<i>Number of Companies</i>	46	46	46	46
<i>R-squared</i>	0.7425	0.0545	0.1914	0.1570
<i>Adjusted R-Squared</i>	0.7366	0.0330	0.1730	0.1379
<i>SE of Regression</i>	7.97E+08	0.0251	0.1296	0.9714
<i>F-Statistic</i>	126.842	2.5373	10.4125	8.1973
<i>Prob (F-Statistic)</i>	0	0.04175	0	0.000004
<i>Mean Dependent var.</i>	7.69E+08	0.0265	0.1060	0.5269
<i>S.D Dependent Var</i>	1.55E+09	0.0256	0.1424	1.0452
<i>Sum Squared Resid.</i>	1.12E+20	0.1112	2.9572	166.0851

(Source: Author's own)

***: Significant at the 1% level

The results show that the amount of R&D expense had a positive association with all the proxies of the companies' future financial performance (Net Income, ROA, ROE, and EPS); therefore, it was thus concluded that the amount of R&D expense had a positive relationship between both current and future financial performance of pharmaceutical companies in general.

4.3. Relation with COVID-19

Table 1 also shows the impact of the occurrence of COVID-19 on the pharmaceutical companies' financial performance, where mostly negative correlations were found, except for EPS, the effect of COVID-19 on the financial performance of pharmaceutical companies could not be deemed as significant.

5 CONCLUSION AND RECOMMENDATIONS

Intangible assets have become a prominent factor influencing a firm's value and profitability. The pharmaceutical company is one of the companies that relies heavily on its intangible assets as continuous innovation is needed to maintain each company's stance and relevance in the market. Research and development department is an integral part of every pharmaceutical company as they rely heavily on its R&D intensity. The results shows that the number of R&D investments affected the financial performance of the pharmaceutical companies in a positive manner. COVID-19 negatively affected the pharmaceutical companies' financial performance, although it could not be deemed significant based on the panel regression analysis. Further study is needed for the effects of investments in intangible assets on the pharmaceutical companies' market performance as this study only examined the firms' specific financial performance of pharmaceutical companies. Further study on the impact of various intangible assets, such as human capital, intellectual property, etc. shall be conducted to review the full effect of investing in the intangible assets on the financial performance of pharmaceutical companies.

REFERENCES

- Chung, H., Eum, S., & Lee, C. (2019). Firm Growth and R&D in the Korean Pharmaceutical Industry. In *Sustainability* (Vol. 11, Issue 10). <https://doi.org/10.3390/su11102865>
- González Peña, O. I., López Zavala, M. Á., & Cabral Ruelas, H. (2021). Pharmaceuticals Market, Consumption Trends and Disease Incidence Are Not Driving the Pharmaceutical Research on Water and Wastewater. In *International Journal of Environmental Research and Public Health* (Vol. 18, Issue 5). <https://doi.org/10.3390/ijerph18052532>
- Koutroumpis, P., Leiponen, A., & Thomas, L. D. W. (2020). Small is big in ICT: The impact of R&D on productivity. *Telecommunications Policy*, 44(1), 101833. <https://doi.org/https://doi.org/10.1016/j.telpol.2019.101833>
- Kumar, R. (2016). Perspectives on value and valuation. In *Valuation: Theories and Concepts* (pp. 3–46). Elsevier Science. <https://doi.org/10.1016/B978-0-12-802303-7.00001-2>
- Lev, B. (2005). Intangible Assets: Concepts and Measurements. In K. K. Leonard (Ed.), *Encyclopedia of Social Measurement* (Vol. 2, pp. 299–305). <https://doi.org/10.1016/B0-12-369398-5/00471-0>
- Song, P. H., Barlow, J. D., Seiber, E. E., & McAlearney, A. S. (2010). Competition in Health Care. In G. Carri, K. Buse, K. Heggenhougen, & S. R. Quah (Eds.), *Health Systems Policy, Finance, and Organization* (pp. 309–314). Elsevier Science.
- Tahat, Y. A., Ahmed, A. H., & Alhadab, M. M. (2018). The impact of intangibles on firms' financial and market performance: UK evidence. *Review of Quantitative Finance and Accounting*, 50(4), 1147–1168. <https://doi.org/10.1007/s11156-017-0657-6>
- WHO Coronavirus (COVID-19) Dashboard. (2022). Retrieved 8 January 2022, from <https://covid19.who.int/>
- Zéghal, D., & Maaloul, A. (2011). The accounting treatment of intangibles – A critical review of the literature. *Accounting Forum*, 35(4), 262–274. <https://doi.org/https://doi.org/10.1016/j.accfor.2011.04.003>

Accelerating Human Capital Development through Digital Learning Experience in the Pandemic Era (Case Study: Evaluation of Implementation Enterprise University Platform in Petrokimia Gresik)

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ABSTRACT: The COVID-19 pandemic has hit Indonesia since March 2020. As the result, all employee competency activities could not be conducted. This is a risk for the company because it cannot run its business processes. One of the solutions is transforming learning during the pandemic by creating a web-based digital distance learning platform using virtual reality, augmented reality, 360 plant facility learning, along with a learning management system. By using this platform, accelerated learning in the midst of a pandemic can be more efficient up to 50% than before with 180 learning scenarios of VR, 20 scenarios of AR, and 196 points of interest in 360° plant facility learning, as well as more than 500 learning modules in LMS, which are accessed by employees in more than 168,000 accesses in a year. Therefore, the company's learning process can continue to run with optimal achievements in a faster time and with more efficient resources.

1 INTRODUCTION

PT Petrokimia Gresik is a company under the auspices of PT Pupuk Indonesia Holding Company that produces various kinds of fertilizers and chemicals for agro-industrial solutions. As the largest and most comprehensive fertilizer producer in Indonesia, PT Petrokimia Gresik is committed to continuing to grow and develop with the community in order to materialize food security and the progress of the national agricultural world (Daulay 2020). To achieve this, PT Petrokimia Gresik strives to develop competence and quality to prepare highly competitive, professional, and reliable human resources. Petrokimia Gresik has outlined the company's strategy in the Long-Term Plan for 2020-2024 to support the company's vision, one of which is by transforming human resources. The COVID-19 pandemic has hit Indonesia since March 2020. This has had a tremendous impact on companies in Indonesia, including PT Petrokimia Gresik. To transform human resources, the company conducted several learning process innovations, such as developing a learning management system, virtual reality learning, augmented reality learning, and 360° plant facility learning. Knowledge Management System is a Learning Management System that every employee and intern at Petrokimia Gresik can access learning database, share their expertise on a website. Virtual Reality in Petrokimia Gresik uses Oculus Rift to learn about basic learning about Fire Extinguisher use, and about maintenance in the plant. Augmented Reality is used for interactive learning of several activities in Petrokimia using augmented reality technology. Lastly, 360 plant facility learning enables non-plant employees and interns to know more about Petrokimia sites and plants using interactive 360 learning. After one year of Enterprise University Launching, Petrokimia Gresik has 816 courses in Knowledge Management System, 187 courses in Virtual Reality Learning, 20 learning scenarios in Augmented Reality Learning, and 196 points of interests in 360° Plant Facility Learning. Therefore, this study aims at assessing the implementation of the Enterprise University platform owned by PT Petrokimia Gresik using the PIECES Framework approach. The results of the analysis were used as a priority for improvement in accordance with customer satisfaction indicators.

2 RESEARCH METHODS

2.1 Flowchart

The research flowchart is as follows.

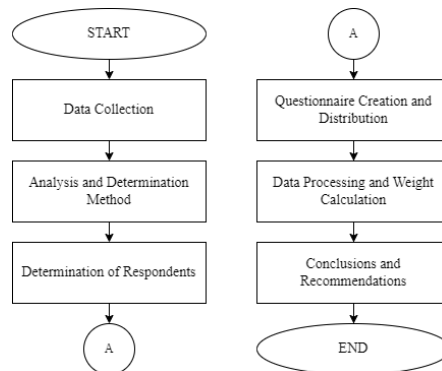


Figure 1 Research Flowchart

2.2 Flowchart Explanation

This sub-chapter explains the research flowchart that has been shown in sub-chapter 3.1. The following is an explanation of each stage in the research flowchart.

2.2.1 Data Collection

This study uses data sourced from:

1. Primary Data

Primary data was data obtained directly from observations of researchers in the field. In this study, several things were conducted in the field, including the following:

- a. Observation
- b. Questionnaire

2. Secondary Data

Secondary data is data or information that was obtained from literature, journals, articles, and internet sites as supporting data used in this study.

This study employed a variable measurement scale, namely the Likert scale, each of which was made using a scale of 1-4 categories of answers, each answer was given a value (score) or weight, namely the number of scores between 1 to 4, with details as in Table 1.

Table 1 Scale of the Questions

Scale	Symbol	Score
Highly Disagree	HD	1
Disagree	D	2
Agree	A	3
Highly Agree	HA	4

2.2.2 Analysis and Determination Method

An analysis of Enterprise University was conducted and the method to be used in this study was determined. The method used was PIECES Framework. PIECES is an abbreviation for performance, information, economics, control, efficiency, and service. PIECES is used to identify issues that arise when establishing new information systems and to set priorities for improving them (Wardhani and Gata 2018).

2.2.3 Determination of Respondents

At this stage, the respondents who would be the targets for distributing the questionnaire were determined. The sample of this study were interns and company expert staff at PT Petrokimia

Gresik. This questionnaire of PIES was distributed to 121 interns, and the CE was distributed to two expert staff. The CE was distributed to two expert staff because control and economic domain are only known only by the expert staff, not by interns.

2.2.4 Questionnaire Creation and Distribution

At this stage, a questionnaire was made in the form of statements and questions based on the PIECES Framework divided into several categories according to the existing domains.

2.2.5 Data Processing and Weight Calculation

After questionnaire was collected, the validity and reliability tests need to be conducted to ensure the quality of the study. Validity and reliability testing for every domain of the PIECES framework were conducted. Based on the results of the questionnaire assessment of the use of Enterprise University, measuring user satisfaction was conducted by using a Likert scale according to the answers and scores, then to calculate the average use the Equation 1 below.

$$\text{Average Satisfaction Score} = \frac{\text{Total Questionnaire Score}}{\text{Number of Respondent}} \quad (1)$$

In determining the level of user satisfaction, the Kaplan and Norton model was applied, as follows.

Table 2 Satisfaction Level Indicator

Satisfaction Level Indicator (Converted)	
Range	Description
1.0 to 1.6	Strongly Disagree
1.6 to 2.2	Disagree
2.2 to 2.8	Fair
2.8 to 3.4	Agree
3.4 to 4.0	Strongly Agree

2.2.6 Conclusions and Recommendations

Conclusions and suggestions were obtained from the results of data processing and weight calculations were conducted on the analysis of user satisfaction.

3 RESULT AND DISCUSSION

3.1 Respondent Classification

This study employed questionnaires, which involved 121 interns as the respondents for PIES and two expert staff as the respondents for the EC aspect.

3.2 Validity and Reliability Test

Validity Test is obtained from Pearson Correlation score and comparing it with R Table Score (Creswell 2013). Reliability Test is obtained from Cronbach's Alpha score and comparing it with R Table Score (Khidzir, Ismail, and Abdullah 2018). From every validity test for each domain, it shows that Pearson Correlation passed every minimum score, which obtained from R Table. If validity test was passed, ever domain reliability test was conducted. Reliability test for every domain shows Cronbach's Alpha score that met the minimum score from R Table too. For Performance got 0.176 Confidence interval and 0.771 Cronbach's Alpha. For Information & data, Efficiency and Service got 0.176 Confidence interval and 0.882 Cronbach's Alpha.

3.3 Questionnaire Results and Weight Calculation

Average Weight Calculation. The calculation of the weights for the entire domain to obtain the average value of the level of satisfaction of Enterprise University users can be seen in Table 9.

Table 3 Satisfaction Index

Domain	Average Satisfaction Score (ASS)	Description
Performance	3.06	Agree
Information and Data	3.11	Agree
Economics	3.00	Agree
Control	2.83	Agree
Efficiency	3.08	Agree
Service	2.95	Agree
Total	3.01	Agree

4 CONCLUSION

Based on data collection, calculation process, to analysis. There are several conclusions that can be drawn. The conclusions of this study are as follows:

1. Implementation of Enterprise University in Petrokimia Gresik had many potentials since the majority of respondents agreed with every domain.
2. However, in several aspects, there were several respondents answering with a Strong Disagree value. Therefore, Petrokimia Gresik must improve from every domain to get a Strong Agree value for every domain.

Suggestions and recommendations to improve Enterprise University and make users satisfied, are as follows:

1. Implementation of Enterprise University in Petrokimia Gresik had many potentials since majority respondents agreed with every domain.
2. However, in several aspects, there were several respondents answering with a Strong Disagree value. Therefore, Petrokimia Gresik must improve from every domain to get a Strong Agree value for every domain.

REFERENCES

- Creswell, John W. 2013. *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. SAGE Publications, Incorporated.
- Daulay, Erman Tale. 2020. "Petrokimia Gresik, Sahabat Petani Dan Solusi Agroindustri [Petrokimia Gresik, Friends of Farmers and Agroindustry Solutions]." *Triasnews*, 2020.
- Khidzir, K A M, N Z Ismail, and A R Abdullah. 2018. "Validity and Reliability of Instrument to Measure Social Media Skills among Small and Medium Entrepreneurs at Pengkalan Datu River." *International Journal of Development and Sustainability* 7 (3): 1026–37.
- Wardhani, Nia Kusuma, and Windu Gata. 2018. "E-Learning Evaluation Using PIECES Framework at Mercubuana University BT - Proceedings of the First Indonesian Communication Forum of Teacher Training and Education Faculty Leaders International Conference on Education 2017 (ICE 2017)." In *The First Indonesian Communication Forum of Teacher Training and Education Faculty Leaders International Conference on Education 2017 (ICE 2017)*, 364–69. Atlantis Press. <https://doi.org/https://doi.org/10.2991/ice-17.2018.79>.

The Millennial Generation's Interest in Investing and Trading Cryptocurrencies

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ABSTRACT: This research aims to determine the millennial generation's interest in investing and trading cryptocurrencies in Jakarta. Cryptocurrency is virtual or digital money which one of the latest technologies currently experiencing a significant increase in popularity. It is used as an alternative to investing and trading stocks and gold. Therefore, by using the Technology Acceptance Model (TAM), this research describes the effect of perceived ease of use and usefulness variables on external social influence and perceived security on usage intentions. The results indicate that all variables, asides from the social influence, significantly influenced interest in investing and trading cryptocurrencies.

1 INTRODUCTION

1.1 *Research Background*

Presently, there is global growth in the use of cryptocurrencies, commonly referred to as crypto, which works on the theory of breaking encryption algorithms to create a finite number of unique hashes. According to DeVries (2016), this system comprises a network of computers capable of verifying transactions and enabling users to exchange hashes similar to physical currency.

The popularity of cryptocurrencies continues to increase, creating various opportunities for the millennial generation in their productive age. Stafford & Griffis (2008) stated that those born from 1980 to 2000 are currently aged 21 to 41 years and likely to start and reach the peak of their careers. According CNBC millionaire survey, 83% of millennial millionaires own cryptocurrencies, more than half (53%) of those youthful, rich investors say they have at least 50% of their wealth in crypto (Frank, 2021).

The economic opportunities that exist from buying and selling cryptocurrencies can be utilized for investment or trading, specifically in Jakarta, the largest urban area in Indonesia dominated by 2.83 million people (26.78%), with the majority in the millennial generation (BPS, 2020).

The high progress of development and its numerous benefits are some reasons for the rapid development of technology in Jakarta (Nugroho, Suhud, & Rochyati, 2016). An example is an electronic money (e-money), where the benefits and ease of use influence the reasons for developing the product (Sultan, Haryanti, & Kurniawati, 2019).

1.2 *Research Objective*

This research focuses on determining the millennial generation's interest in investing and trading cryptocurrencies using the Technology Acceptance Model (TAM).

2 THEORETICAL FRAMEWORK AND HYPOTHESIS

2.1 *Technology Acceptance Model Theories (TAM)*

The aim of TAM is to provide a theoretical explanation of the determinants of technology acceptance and efficiently describe various user behaviors. TAM enables the easy prediction of users' behaviors and makes theoretical explanations on technology acceptance. Therefore, TAM serves as a guide for identifying unacceptable systems and helps to explain corrective interventions (Davis, 1989).

Perceived ease of use (PEOU) and perceived usefulness (PU) are used to determine the user's attitude toward technology usage (ATU), thereby influencing behavioral intentions (BI). The flow ends in technology usage (TU) behavior (Olushola & Abiola, 2017).

2.1.1 *Perceived Usefulness (PU)*

PU is the user's perception of the extent to which the use of the system improves performance (Olushola & Abiola, 2017). PU can also be interpreted as a positive or negative idea on the increase in performance and use of technology (Davis, 1989). This also aims to determine people's behavior in accepting or rejecting the use of cryptocurrencies in investing and trading.

2.1.2 *Perceived Ease of Use (PEU)*

PEOU is an indicator used to determine the extent of individual beliefs on the ease of using certain technologies and learning without additional effort. When individuals think the new technology is easy to use, their behavioral intention towards it becomes positive. In this situation, PEOU has an indirect effect on PU (Davis, 1989). Therefore, this research aims to determine how the ease of use and obtaining information on cryptocurrencies can influence individual actions to invest and trade.

2.1.3 *Social Influence (SI)*

It occurs when others influence a person's thoughts, feelings, and actions because of social relationships. In addition, it is the process of conformity, socialization, peer pressure, obedience, leadership, persuasion, minority influence, and social change (Smith, Louis, & Schultz, 2011). (Venkatesh, 2003), SI is the importance that others recognize using new technology. Its construct consists of three variables, namely subjective norms, social factors, and figure.

2.1.4 *Perceived Security (PS)*

According to Ally & Toleman (2005) stated that perceived security (PS) is the probability that consumers believe their payment information will not be viewed, manipulated, or misused by unauthorized users during processing. Furthermore, they believe transactions are conducted in a manner that the obligations of all parties involved are fulfilled (Ally & Toleman, 2005). In this research, security in conducting cryptocurrencies transactions has the potential to influence individual actions in investing and trading.

2.2 *Investment*

Investment comprises four elements, namely the contribution of money or assets, certain duration, an element of risk, and a contribution to the host country's economy (Grabowski, 2014). Investment decisions are based on fundamental and technical analysis, as well as valuation. In addition, market information and factors can also influence investment decisions, and psychological principles systematically influence investors (Jagongo & Mutswenje, 2014).

2.2.1 *Trading*

Trading is one of the strategies used to generate profits from cryptocurrencies by predicting market price movements within a short period. Therefore, technical analysis skills are needed to determine whether the market is bullish or bearish (Mehranian, Roodposhti, Nekomaram, & Saeedi, 2016). The condition of price changes becomes a reference for traders to take advantage of the momentum by understanding several patterns of price changes (Kashyap, 2013).

2.3 *Hypothesis*

The hypothesis used in this research is as follows:

H₁ : Social Influence (SI) has a positive effect on investment interest and cryptocurrency trading (ITU)

- H₂ : Perceived Usefulness (PU) has a positive effect on interest in investing and trading cryptocurrency (ITU)
- H₃ : Perceived Ease of Use (PEOU) has a positive effect on Perceived Usefulness (PU)
- H₄ : Perceived Ease of Use (PEOU) has a positive effect on interest in investing and trading cryptocurrency (ITU)
- H₅ : Perceived Security (PS) has a positive effect on interest in investing and trading cryptocurrency (ITU)

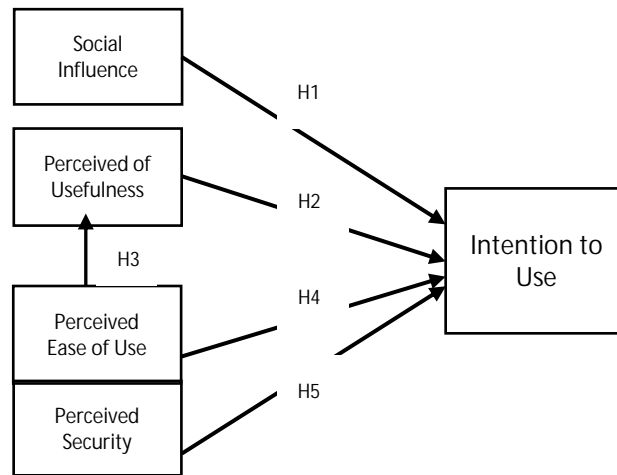


Fig 1: Theoretical Framework

3 RESEARCH METHOD

3.1 Research Type, Data Source and Sample

The quantitative methods were used to collect primary and secondary data from respondents determined through the purposive techniques and categorized as millennials. Furthermore, the snowball sampling and a non-probability techniques were used to determine respondents with similar characteristics. To gain a deeper understanding of the interest in investing and trading cryptocurrencies, the target minimum sample size of 100 comprised respondents aged 21 to 41 or those born in 1980 to 2000.

3.2 Data Analysis Method

The method used to process the collected data is Partial Least Square-Structural Equation Modeling (PLS-SEM) version 3.3. It was used to ensure the construct steps fulfilled the validity and reliability values. The structural model results were used to examine the relationship between users' predictive ability and the constructs.

4 RESULT AND DISCUSSION

Data were collected from 143 respondents through a questionnaire. However, of the 143 respondents, 137 fulfilled the criteria, as opposed to the remaining 6 because their age did not fall into the millennial generation category.

The factor loading value is greater than or equal to 0.7 and the AVE value above or equal to 0.5. This shows that the measurement model represents the latent construct, therefore, all variable constructs are considered reliable. Similarly, the AVE value fulfilled the requirements above 0.5. This means that the indicators in the research model are proven to be able to measure the targeted latent construct.

Meanwhile, in the Fornell-Lacker criterion, each variable has higher correlation values between one another. Therefore, the Fornell-Lacker criterion value of the measurement model can be believed to be in the good category.

Meanwhile, in the effect size test, the f^2 value of perceived ease on intention to use is 0.028, indicating a small effect. The f^2 value of PS on intention to use is 0.097, which indicates that it has a small effect. The value of f^2 PU on intention to use is 0.254, indicating an intermediate

effect. The f^2 value of SI on the intention to use is 0.032, which indicates that it has a small effect. The effect size Q^2 value estimated using the blindfolding procedure represents a measure of how well the path model predicts the initially observed value. Similar to the f^2 effect size approach, the effect size q^2 is conducted by calculating the change value when the Q^2 is entered and not entered. Of all the variables shown above, a small effect indicates that the exogenous construct has little predictive relevance for the endogenous construct under consideration.

5 CONCLUSION AND RECOMMENDATIONS

In conclusion, the modification of TAM with classical variables, such as PEOU and PU with SI and PS, can predict future generations of cryptocurrencies investors and traders. All constructs used to predict millennial generation cryptocurrencies investment and trading interest in Jakarta are reliable and confirmed hypotheses.

Further research on cryptocurrencies needs to be conducted to determine the effect of the income level of respondents and add other variables such as the amount of information, level of knowledge and perceived privacy. Barriers to measuring the impact of education have not been successful, therefore, different methodologies need to be used to test this effect. Presently, cryptocurrencies are in their early stages of development, defined by a lack of regulation and real-world applications, thereby making them far from market-ready. Therefore, it will be interesting to run similar tests when the technology is closer to market introduction or the first concrete applications become available. This research also aims to ensure managers understand the influence of accepting the use of cryptocurrencies to develop ideal strategies.

REFERENCES

- BPS. (2020). *Hasil Sensus Penduduk 2020 Provinsi DKI Jakarta*. Jakarta: Badan Pusat Statistik. Retrieved from <https://jakarta.bps.go.id/pressrelease/2021/01/22/541/jumlah-penduduk-hasil-sp2020-provinsi-dki-jakarta-sebesar-10-56-juta-jiwa.html>
- Nugroho, H., Suhud, U., & Rochyati. (2016). Penerapan Pengembangan Teori Technology Acceptance Model (TAM) dan Motivasi terhadap Intensi Mahasiswa di Jakarta untuk Menggunakan Tablet. *Journal of Communication Studies*, 5(1), 45-64.
- Sultan, R. R., Haryanti, T., & Kurniawati, L. (2019). Analisis Technology Acceptance Model Generasi Millennial Jakarta terhadap Penggunaan E-Money. *Jurnal PILAR Nusa Mandiri*, 15(1), 133-140.
- Olushola, T., & Abiola, J. O. (2017). The Efficacy of Technology Acceptance Model: A Review of Applicable Theoretical Models in Information Technology Researches. *Journal of Research in Business and Management*, 4(11), 70-83.
- Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS Quarterly*, 13(3), 319-340. Retrieved from <https://doi.org/10.2307/249008>
- Mugo, D., Njagi, K., Chemwei, B., & Motanya, J. (2017). The Technology Acceptance Model (TAM) and its Application to the Utilization of Mobile Learning Technologies. *British Journal of Mathematics & Computer Science*, 20, 1-8. doi:10.9734/BJMCS/2017/29015
- Smith, J. R., Louis, W. R., & Schultz, P. W. (2011). Introduction: Social influence in action. *Group Processes & Intergroup Relations*, 14(5), 599-603. doi:10.1177/1368430211410214
- Venkatesh, V. e. (2003). User Acceptance of Information Technology: Toward a Unified View. *Science Watch*.
- Tsiakis, T. (2012). . Consumers' issues and concerns of perceived risk of information security in online framework . The marketing strategies. *Social and Behavioral Sciences*, 62, 1265-1270.
- Ally, M., & Toleman, M. (2005). A Framework for Assessing Payment Security Mechanisms and Security Information on e-Commerce Web Sites. *Pacific Asia Conference on Information Systems*, 1216-1231.
- Grabowski, A. (2014). The Definition of Investment under the ICSID Convention: A Defense of Salini. *Chicago Journal of International Law*, 15(1), 287-309. Retrieved from <https://chicagounbound.uchicago.edu/cgi/viewcontent.cgi?article=1058&context=cjil>
- Jagongo, A., & Mutswenje, V. S. (2014). A Survey of the Factors Influencing Investment Decisions: The Case of Individual Investors at the NSE. *International Journal of Humanities and Social Science*, 4(4), 92-102.
- Mehrania, K., Roodposhti, F. R., Nekomaram, H., & Saeedi, A. (2016). Behavioral trading strategies and investor sentiment: Empirical research in Tehran Stock Exchange (TSE). *Indonesian Capital Market Review*, 8, 94-109.
- Kashyap, R. (2013). Trading Strategies and Market Colour: The Benefits of Friendship with Quantitative Analysts and Financial Engineers. *SSRN Electronic Journal*. doi:10.2139/ssrn.2661949
- DeVries, P. D. (2016). An Analysis of Cryptocurrency, Bitcoin, and the Future. *International Journal of Business Management and Commerce*, 1(2), 1-9.
- Stafford, D. E., & Griffis, H. S. (2008). *A Review of Millennial Generation Characteristics and Military Workforce Implications*. Virginia: The CNA Corporation. Retrieved from https://www.cna.org/CNA_files/PDF/D0018211.A1.pdf
- Sugiyono. (2017). *Metode Penelitian Kuantitatif, Kualitatif, dan R&D*. Bandung, Indonesia : CV Alfabeta.
- Salkind, N. J. (2010). Endogenous Variables.

The Effect of Perceived Organizational Support on Individual Readiness for Change: The Role of Psychological Capital

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ABSTRACT: This study aims to determine the effect of perceived organizational support on individual readiness for change mediated by psychological capital. It was conducted considering the COVID-19 pandemic, which introduces many people to the use of digital devices connected to the internet to carry out all their activities, including work. This indicates that digital transformation is in the process of being implemented. It is essential that the telecommunications industry adapt quickly to the growing use of the internet, which leads to digital transformation through increased connection strength. A quantitative design was also adopted using surveys as a method of data collection. The surveys involved 285 employee respondents working in telecommunication industries. Furthermore, structural equation modeling was adopted for analysis using the LISREL application. The result showed that psychological capital mediates the relationship between perceived organizational support and readiness for change

1 INTRODUCTION

In early 2020, the world, specifically Indonesia, experienced a health emergency called Covid-19 and this led to a dramatic changes in human lives. The government has attempted to establish different regulations to mitigate virus spread, called social distancing, one of which is work from home. According to data from the World Economic Forum (2020), 85.7% of firms worldwide have policies to increase remote work options. This condition fostered the development of a technical system known as telecommuting or teleworking. The communication in the telecommuting/teleworking work paradigm is technological or digital. The telecommunications industry plays a critical role in ensuring that the signal is clear and free of interference. Furthermore, Evandio (2020) stated that all systems in the telecommunications industry will prioritize increased digital use, implying a digital transformation.

To maintain a competitive edge throughout this period of change, an organization must be ready, hence, it necessitates the readiness for change. Rafferty, Jimmieson, and Armenakis (2013) argue that one of the factors of readiness to change is individual characteristics which is represented by readiness for change. These attitudes are influenced by three groups of factors, one of which is personal characteristics that can be represented by psychological capital, which is a person's stage of psychological development. It is also a high-level construct comprised of components such as self-efficacy, hope, resilience, and optimism. One factor affecting an employee's psychological capital is their perceived organizational support.

2 LITERATURE REVIEW

Armenakis et al. (1993) state that individual readiness for change is reflected in organizational members' beliefs, attitudes, and intentions to how much change is needed and how much capacity the organization must make successful changes.

According to Robbin & Judge in Waileruny (2014), perceived organizational support shows that individuals feel their organization is supportive when rewards are considered relatively, employees have a voice in decision making, and their supervision is considered supportive.

Luthans, Youssef, and Avolio (2007) define psychological capital as a state-like construct that represents an individual's state of positive psychological development as defined by the following characteristics: (1) self-efficacy, to accumulate and exert the effort necessary to complete challenging tasks, (2) optimism, about current and future success, (3) hope, persistence in

achieving goals and directing the path to success toward the goal, and (4) resilience, when confronted with probing situations.

3 METHODOLOGY

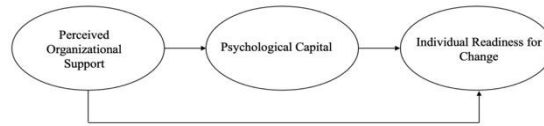


Figure 1 Study Model.

The data in this study were collected from Indonesian telecommunications companies. The selection criteria include employees actively working in the companies. The online questionnaires were also distributed in three stages: a wording test was administered to 10 respondents, a pilot test was administered to 30 respondents, and the main test was administered to 285 respondents.

Fifty-five questions were adopted from previous relevant studies and the respondents were asked to rate their answers on a 6-point Likert scale. The questionnaire used to assess individual readiness for change contains 14 questions and was adapted from Hanpachern's (1997). Psychological capital was quantified using 24 questions from the Luthans, Youssef, and Avolio-developed PCQ-24 (2007). Furthermore, perceived organizational support was quantified using Eisenberger, Cummings, Armeli, and Lynch's Survey of Perceived Organizational Support (1997) that comprised eight items. The structural equation technique or modeling (SEM)-Lisrel was used to analyze the data.

The hypotheses are stated as follows:

- H1: There is a positive effect of perceived organizational support on psychological capital.
- H2: There is a positive effect of perceived organizational support on individual readiness for change.
- H3: There is a positive effect of psychological capital on individual readiness for change.
- H4: There is a positive effect of perceived organizational support on individual readiness for change mediated by psychological capital

4 RESULT

The questionnaires were filled out by 91 men (31.9%) and 194 women (68.1%). The majority of respondents live in Jabodetabek (80.7), and most were D4/S1 (66.3%). Around 55.4% worked for telecommunication companies for 2–5 years. Only over a half of them were working as staff (55.8%), and the rest were supervisors (21.4%), managers (19.3), and top-level (3.5%). The measurement model was assessed using validity, reliability, and goodness-of-fit indices. The validity was evaluated by the value of standardized loading factors (SLFs), while reliability was evaluated by construct reliability (CR) and average variance extracted (AVE). The desirable value of SLF was 0.50; CR was 0.70, and AVE was 0.5. This indicates that all indicators were above the criteria.

This study used eight goodness-of-fit indicators to assess the overall model fit, namely chi-square, RMSEA, GFI, NFI, NNFI, CFI, IFI, and RFI. Seven GoF indicators resulted in a good fit. Meanwhile, GFI showed marginal fit, and the overall structural model had a good fit for the data. After validating the model, the hypotheses were tested.

Table 1. Hypothesis testing results.

Hypotheses	SLF	T-Value	Z-Value	Result
H1: There is a positive effect of perceived organizational support on psychological capital.	0,43	6,84	***	Supported
H2: There is a positive effect of perceived organizational support on individual readiness for change.	0,18	2,08	***	Supported
H3: There is a positive effect of psychological capital on individual readiness for change.	0,29	3,62	***	Supported

Based on the results of SEM, perceived organizational support has a positive effect on psychological capital (SLF=0.43; t-value=6.84) and individual readiness for change (SLF=0.18; t-value=2.08), indicating that H1 and H2 are supported. Psychological capital was found to positively affect individual readiness for change (SLF:0.29; t-value:3.63), denoting that H3 is supported.

Table 2. Hypothesis testing results.

Hypotheses	a	b	SE A	SE B	Z-Value	P-Value	Result
H4: There is a positive effect of perceived organizational support on individual readiness for change mediated by psychological capital	0,43	0,29	0,06	0,07	3,22	0,00	Supported

Based on Table 2, psychological capital was found to fully mediate the effect of perceived organizational support on individual readiness for change (z-value:3.22; sig.=0,05).

5 DISCUSSION

With the acceptance of H1 and H2, it can be concluded that the higher the level of perceived organizational support for employees, the higher level of psychological capital of employees and individual readiness for change. Previous study by Yang et al. (2020) shows that perceived organizational support affects psychological capital. The study demonstrates that perceived organizational support is critical for psychological capital to create a better attitude and mindset. This is consistent with Chu and Meng-HSui (2015), which showed that there was a positive effect between perceived organizational support on individual readiness for change. Therefore, perceived organizational support played a significant role and had an impact on the feeling of the individual getting the change.

This study also showed that psychological capital positively affected individual readiness for change. This is consistent with the report of Kirrane, Lennon, O'Connor, and Fuin 2016. In organizational change, psychological capital plays a significant role because employees who feel more positive about their own ability to deal with problems are more ready to deal with changes.

Furthermore, psychological capital was found to mediate the effect of perceived organizational support on individual readiness for change. This is consistent with the report of Luthans, Norman, Avolio, and Avey (2008) that employees in the telecommunications industry have more positive psychological capital and a better work environment if they consider their company is supportive. Psychological capital acts as a mediator because employees' responses are influenced by their psychological resources and how they see their organization's contributions.

6 CONCLUSION

Perceived organizational support have positive influence on individual readiness for change. In another sense, organizational support must be at a good level by providing enthusiasm for workers. Psychological capital also mediates the relationship between perceived organizational support on individual readiness for change. This result means that it is needed to increase support from the organization itself in order to create positive feelings that grow within employees in order to prepare employees to participate in digital transformation.

REFERENCE

- Armenakis, A., Harris, S., & Mossholder, K. (1993). *Creating readiness for organizational change*. *Human relations*, 46(6), 681-703.
- Ming-Chu, Y., & Meng-Hsiu, L. (2015). Unlocking the black box: Exploring the link between perceived organizational support and resistance to change. *Asia Pacific Management Review*, 20(3), 177-183.
- Eisenberger, R., Cummings, J., Armeli, S., & Lynch, P. (1997). Perceived organizational support, discretionary treatment, and job satisfaction. *Journal of applied psychology*, 82(5), 812-820.
- Eisenberger, R., Armeli, S., Rexwinkel, B., Lynch, P., & Rhoades, L. (2001). Reciprocation of perceived organizational support. *Journal of Applied Psychology*, 86(1), 42-51.
- Evandio, A. (2020, Maret 18). "Perang" Layanan ala Operator Telekomunikasi di Tengah Social Distancing. Retrieved 20 September 2021, from Bisnis.com: <https://teknologi.bisnis.com/read/20200318/101/1215150/perang-layanan-ala-operator-telekomunikasi-di-tengah-social-distancing>
- Hanpachern, C. (1997). *The extension of the theory of margin: A framework for assessing readiness for change*. Unpublished Doctoral Dissertation, Colorado State University, Fort Collins.
- Kirrane, M., Lennon, M., O'Connor, C., & Fu, N. (2016). *Linking perceived management support with employees' readiness for change: the mediating role of psychological capital* (Vol. 17).
- Luthans, F., Youssef, C. M., & Avolio, B. J. (2007). *Psychological capital: Developing the human competitive edge*. Oxford: Oxford University Press.
- Luthans, F., Avey, J., Clapp-Smith, R., & Li, W. (2008). More evidence on the value of Chinese workers' psychological capital: A potentially unlimited competitive resource? *The International Journal of Human Resource Management*, 19(5), 818-827.
- Luthans, F., Norman, S., Avolio, B., & Avey, J. (2008). The mediating role of psychological capital in the supportive organizational climate-employee performance relationship. *Journal of Organizational Behavior*, 29(2), 219- 238.
- Rafferty, A. E., Jimmieson, N. L., & Armenakis, A. A. (2013). Change Readiness A Multilevel Review. *Journal of Management*, 39(1), 110-135.
- Robbins, S. P., & Judge, T. A. (2016). *Organizational Behavior* (Vol. 17th Edition). United States: Pearson Education.
- Yang, S., Huang, H., Qiu, T., Tian, F., Gu, Z., Gao, X., et al. (2020). Psychological Capital Mediates the Association Between Perceived Organizational Support and Work Engagement Among Chinese Doctors. *Frontiers in Public Health*, 8(149), 1-8.

The Impact of Advertising Invasiveness on Advertising Avoidance on Instagram Ads

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ABSTRACT: This research aims to analyze advertising avoidance in the millennial generation by examining advertising invasiveness, where non-marketers feel attacked when an ad appears. The data are collected by purposive sampling from 280 millennial Instagram users in Indonesia. The partial least square-structural equation modeling (PLS-SEM) is used to analyze the relationship between variables and their effect on advertising avoidance. The results prove that advertising invasiveness is significant to advertising irritation, which leads to advertising avoidance. However, a positive attitude mediates the relationship between advertising irritation and advertising avoidance. It is also discovered that advertising irritation affects advertising skepticism. Furthermore, social influence has a significant effect on space invasiveness. The research provides managerial implications for marketers to minimize non-marketing users' ad avoidance and suggestions for further research.

1 INTRODUCTION

Social media differs from traditional media since the content on social media is created by users. Therefore, when an ad appears, consumers will perceive it as if their account as personal space being invaded (Pierce, 2001). When advertisements appear, consumers can see as if their personal space is being invaded (Kelly et al., 2019). The high intensity of similar ads makes Instagram users feel invaded. The level of invasion perceived by users is likely to influence their attitude. Thus, this creates the potential for irritation felt by consumers which can negatively affect the acceptance of advertisements on social media (Li & Huang, 2016). When advertisements appear, the attention of consumers is disturbed (attention invasiveness).

Consumers will feel exposed to the many ads appearing on their screens. Therefore, consumers tend to make advertising avoidance efforts to reduce the exposure level to these ads. A study by Niu et al. (2020) considers the role of advertising invasiveness and irritation affects advertising avoidance. This is further confirmed by Loureiro (2018) who finds that advertising irritation affects advertising skepticism, which ultimately affects advertising avoidance.

However, *social media is a new dimension and mix of marketing promotion and communications, allowing users to express their products through advertising (Kumar et al., 2016). Furthermore, internet technology in Indonesia is growing rapidly, indicated by the number of users of 203.6 million and penetration of 73.7% in January 2021. The internet has been used for Instagram social media by 86.5%. Instagram ads, specifically, have made it easier for marketers to introduce their products, with the fact that the potential for Instagram users to see ads is 39.9% of the total users over the age of 13. The majority of social media users are millennials aged 25 to 34 years (34.1%) with an average usage of 3 hours 14 minutes per day (Hootsuite, 2021).*

Social media platforms have a major influence on the vulnerability of peers in determining advertising attitudes (Chinchanchokchai & de Gregorio, 2020). Previous studies concluded that advertising invasiveness is able to be affected by social influence (Niu et al., 2020). Additionally, according to psychological ownership theory, the possible reason for advertising avoidance is that everyone has the drive to satisfy their needs, which underlies a person to have a feeling of belonging to an object (Pierce, 2001).

In this case, a consumer's cognitive processing or behavior is directed at the advertiser's goal. Therefore, they feel attacked and invaded. Concerning advertising invasiveness, based on data from Hootsuite (2020), Indonesia holds the second position, with a percentage of 40.9%, as a

country whose internet users have an ad blocker. Therefore, it is interesting to examine the responses of Instagram users in Indonesia to ad avoidance.

2 LITERATURE REVIEW

Advertising avoidance is any attempt by media users to reduce their exposure to advertising content. The type of ad avoidance is based on the research of Cho and Cheon (2004) that there are cognitive, affective, and behavioral. This is confirmed by Loureiro (2018) who found that advertising irritation affects skepticism and advertising attitudes so that advertising avoidance is affected. Another thing that affects advertising avoidance is psychological ownership, which is an individual's psychological experience where one develops a feeling of belonging (possessiveness) towards a target (Pierce, 2001). Furthermore, Pierce et al. (2001) explained that there are three roots of psychological ownership formed within a person, namely self-efficacy, self-identity, and belongingness. Deutsch and Gerard (1955) also proposed two psychological needs that direct humans to conform to the expectations of others.

Advertising invasiveness is the degree to which advertising in the media interferes with a person's activities (Ha & McCann, 2008). Research by Niu et al. (2020) stated that space invasiveness is an additional dimension to explain advertising invasiveness on social media. Advertising invasiveness includes two dimensions, namely attention and space invasiveness. Therefore, when Instagram ads appear, users will feel that their goals are disturbed. This situation is worsened when ads with the same or similar topics appear, which will lead to the perception of attention invasiveness. In fact, Instagram users tend to feel that social media is a personal area or space that they can control. This is related to the psychological ownership theory, where Instagram is considered the object of ownership as part of self-identity (Pierce, 2001).

According to Aaker and Bruzzone (1985) advertising irritation is one of the things that provokes and causes temporary displeasure and impatience. Ads that stimulate consumers' senses excessively can cause irritability. Advertising irritation can increase distrust of ads, and consumers will become less open to these ads. Subsequently, according to Obermiller et al. (2005) advertising skepticism reduces attention and trust in ads and the view that ads are suspicious.

Advertising attitude is a relatively global and enduring individual evaluation of an object, problem, person, or action. In addition, an advertising attitude tends to respond positively or negatively to exposure to certain ads, which can further exacerbate the positive or negative endorsement of perceived ad avoidance (Yoon & Kim, 2016).

3 RESEARCH METHODOLOGY

Based on literature reviews and previous research, the hypotheses developed in this study are as follows:

- H1a: Psychological ownership has a positive effect on attention invasiveness.
- H1b: Psychological ownership has a positive effect on space invasiveness.
- H2a: Social influence has a negative effect on attention advertising.
- H2b: Social influence has a negative effect on advertising space.
- H3a: Attention invasiveness has a positive effect on advertising irritation.
- H3b: Space invasiveness has a positive effect on advertising irritation.
- H4: Advertising irritation has a positive effect on advertising skepticism.
- H5: Advertising skepticism has a positive effect on advertising avoidance.
- H6: Advertising irritation has a positive effect on advertising attitude.
- H7: Advertising attitude has a positive effect on advertising avoidance.
- H8: Advertising irritation has a positive effect on advertising avoidance.

To test the proposed hypothesis. A survey was distributed by popular social media in Indonesia. Data was collected in October - November 2021. The criteria for respondents were Indonesian citizens in the millennial generation. The final respondents consisted of 280 respondents from roughly gender proportion. This study uses items proposed by Niu et al. (2020) to measure social influence, psychological ownership, attention invasiveness, space invasiveness, and advertising irritation. In addition, the study also refers to Cho and Cheon (2004) to measure advertising

avoidance. The same method by Loureiro (2018) is employed to measure advertising skepticism. Meanwhile, the items proposed by MacKenzie and Lutz (1989) in Loureiro (2018) are used to measure advertising attitudes. The hypothesis is tested using the partial least square-structural equation modeling (PLS-SEM) technique with SmartPLS.

4 FINDINGS

The first step is to test the measurement model, where the outer loading value must be greater than 0.708 (Hair et al., 2019). The value of Cronbach's alpha, Dijkstra-Henseler rho (ρ_A) and composite reliability must exceed 0.7. Then, the advertising value equivalency (AVE) for each construct must be greater than 0.5. The results show that all constructs are reliable. The next testing stage is discriminant validity. This measure is determined by the heterotrait-monotrait ratio of correlations (HTMT) where the value must be below 0.90 (Hair et al., 2019). The results show that all constructs were reliable and valid. The last step of testing was testing the structural model. The results of the path coefficient are presented in Table 1.

Table 1. Path coefficient value and P-value.

Path	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values
Psychological Ownership → Attention Invasiveness	-0,125	-0,137	0,075	1,672	0,095
Psychological Ownership → Space Invasiveness	-0,108	-0,111	0,086	1,253	0,210
Social Influence → Attention Invasiveness	0,071	0,079	0,077	0,917	0,359
Social Influence → Space Invasiveness	0,209	0,218	0,076	2,766	0,006
Attention Invasiveness → Ad Irritation	0,404	0,405	0,080	5,045	0,000
Space Invasiveness → Ad Irritation	0,266	0,267	0,074	3,619	0,000
Ad Irritation → Ad Skepticism	0,199	0,210	0,074	2,675	0,008
Ad Skepticism → Ad Avoidance	0,043	0,047	0,067	0,638	0,524
Ad Irritation → Ad Attitude	-0,365	-0,370	0,070	5,231	0,000
Ad Attitude → Ad Avoidance	-0,189	-0,186	0,067	2,831	0,005
Ad Irritation → Ad Avoidance	0,448	0,452	0,054	8,287	0,000

Source: Result of Statistical data using SMART.PLS

Table 1 shows that advertising invasiveness, which consists of attention and space invasiveness, significantly and positively affects advertising irritation, which supports the findings of Niu et al. (2020). Furthermore, advertising irritation has a positive effect on advertising avoidance and advertising skepticism. However, advertising skepticism does not affect advertising avoidance. On the other hand, advertising attitudes are proved to mediate a significant negative relationship between advertising irritation and advertising avoidance. Besides, advertising irritation is the main cause that affects advertising avoidance. Social influence has a significant positive effect on space invasiveness. However, social influence is not significant to attention invasiveness.

This study shows that an increase in advertising irritation is the most influential on advertising avoidance, which supports the findings of Niu et al. (2020). A positive attitude towards advertising can reduce advertising avoidance, and this is in accordance with the findings of Chinchanchokchai and Gregorio (2020). It is understood that advertising invasiveness on social media, especially on Instagram, can create advertising irritation.

However, based on the respondents and results, it was found that the level of psychological ownership and social influence on attention invasiveness had no relationship to advertising avoidance. This can be associated with COVID-19, due to the increase of Instagram usage by 40% during the pandemic. Instagram users spend more time using the platform as a means of interacting with each other, especially when the social distancing regulation applies. Furthermore, the respondents in this study are the millennial generation who are individuals full of energy in

exploring many things and appreciate viral content (IDN Media, 2020). In addition, they are skeptical of ads, they do not avoid ads because they enjoy Instagram's features.

5 CONCLUSION

The pandemic has made users operate Instagram as a means of interaction, even though there is an over-exposure of ads on the user's screen. Advertising invasiveness has two dimensions of attention and space invasiveness. Consumers will feel that ads are a distraction that causes advertising irritation and triggers a positive or negative reaction. This attitude will also affect advertising avoidance. Therefore, it is suggested for further research to add other variables in analyzing advertising invasiveness and choose more specific types of advertising. Thus, marketers can minimize advertising avoidance by reducing advertising irritation, negative attitudes, and advertising invasiveness. For companies that Instagram social media remains a good communication channel platform to use by considering things that can reduce ad invasion as above. Companies can optimize the use of features available on Instagram to reduce the perception of consumer invasion. Finally, this research contributes to expanding the literature on advertising avoidance in online advertising, especially on Instagram.

REFERENCES

- Aaker, D. A., & Bruzzone, D. E. (1985). Cause of Irritation in Advertising. *Journal of Marketing*, 49, 556.
- Chinchanchokchai, S., & de Gregorio, F. (2020). A Consumer Socialization Approach to Understanding Advertising Avoidance on Social Media. *Journal of Business Research*, 110(January), 474–483. <https://doi.org/10.1016/j.jbusres.2020.01.062>
- Cho, C. H., & Cheon, H. J. (2004). Why do People Avoid Advertising on The Internet? *Journal of Advertising*, 33(4), 89–97. <https://doi.org/10.1080/00913367.2004.10639175>
- Deutsch, M., & Gerard, H. B. (1955). A Study Of Normative And Informational Social Influence Upon Individual Judgement. *Journal of Abnormal and Social Psychology*, 51, 629–636.
- Ha, L., & McCann, K. (2008). An Integrated Model of Advertising Clutter in Offline and Online Media. *International Journal of Advertising*, 27(4), 569–592. <https://doi.org/10.2501/S0265048708080153>
- Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to Use and How to Report The Results of PLS-SEM. *European Business Review*, 31(1), 2–24. <https://doi.org/10.1108/EBR-11-2018-0203>
- Hootsuite. (2021). *Digital Indonesia*. <https://datareportal.com/reports/digital-2021-indonesia>
- IDN Media. (2020). Indonesia Millennial Report: Understanding Millennial's Behaviours and Demystifying Their Stereotypes. *IDN Research Institute*, 01, 1–83.
- Kelly, L., Kerr, G., Drennan, J., Fazal-e-hasan, S. M., Kelly, L., Kerr, G., Drennan, J., Fazal-e-hasan, S. M., & Kelly, L. (2019). Feel , Think , Avoid : Testing a New Model of Advertising Avoidance. *Journal of Marketing Communications*, 00(00), 1–22. <https://doi.org/10.1080/13527266.2019.1666902>
- Kumar, A., Bezawada, R., Rishika, R., Janakiraman, R., & Kannan, P. K. (2016). From Social to Sale: The Effects of Firm-Generated Content in Social Media on Customer Behavior. *Journal of Marketing*, 80(1), 7–25. <https://doi.org/10.1509/jm.14.0249>
- Li, W., & Huang, Z. (2016). The Research Of Influence Factors Of Online Behavioral Advertising Avoidance. *American Journal of Industrial and Business Management*, 06(09), 947–957. <https://doi.org/10.4236/ajibm.2016.69092>
- Loureiro, S. M. C. (2018). Tell What You Want But Do Not irritate me: A Senior Perspective About Advertising. *Journal of Promotion Management*, 24(2), 198–214. <https://doi.org/10.1080/10496491.2017.1360825>
- Niu, X., Wang, X., & Liu, Z. (2020). When I Feel Invaded, I will Avoid It: The Effect of Advertising Invasiveness on Consumers' Avoidance of Social Media Advertising. *Journal of Retailing and Consumer Services*, 58(July 2020). <https://doi.org/10.1016/j.jretconser.2020.102320>
- Obermiller, C., Spangenberg, E., & MacLachlan, D. L. (2005). Ad Skepticism: The Consequences of Disbelief. *Journal of Advertising*, 34(3), 7–17. <https://doi.org/10.1080/00913367.2005.10639199>
- Pierce. (2001). *Toward a Theory of Psychological Ownership in Organizations*. 26(2), 298–310.
- Yoon, H. J., & Kim, Y. J. (2016). Understanding Green Advertising Attitude and Behavioral Intention: An Application of the Health Belief Model. *Journal of Promotion Management*, 22(1), 49–70. <https://doi.org/10.1080/10496491.2015.1107006>

The Effect of Content Marketing on Customer Engagement on Local Beauty Brands on Instagram

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ABSTRACT: This research aims at investigating the effect of content marketing on customer engagement on local beauty products on Instagram in Indonesia by adopting a research model framework from Balio's empirical research (2021). This research was quantitative research with a type of conclusive research. The data were collected using a questionnaire regarding the relevance of the effect of the model that included post type, post timeframe, post appeal, and message interactivity on customer engagement on Instagram. This research employed Structural Equation Modeling (SEM) method to analyze the data. The results of the research will provide local beauty product brands with a complete picture of content marketing and its impact on customer engagement behaviour on Instagram social media. This is an important basis in planning market development strategies, branding, attracting customers, and increasing competitiveness. This research had a simple research model and had not developed variables.

1. INTRODUCTION

The role of social media, especially Instagram, enables business people in various industries to improve their business (Balio & Casais, 2021). Instagram has given the power to users or customers to actively interact and react directly to marketing messages (Phan et al., 2020). The beauty product industry in Indonesia is one of the industries using social media Instagram as a marketing tool. The development of the beauty product industry in Indonesia has been increasing every year. The beauty product industry market in Indonesia is estimated to grow every year by 7.2% or Rp. 77.3 trillion. The development in the market share of beauty products in Indonesia has led to intense competition among beauty brands from within and outside the country. Therefore, local beauty product brands should be able to take advantage of all the potential that exists, including the use of social media, particularly Instagram, to compete with foreign products. Instagram provides an interactive environment that encourages two-way communication between customers and brands (Phan et al., 2020). Interaction and engagement with customers are essential as a key to business success, thus the ability to create and maintain long-term relationships with customers is currently required (Balio & Casais, 2021). This form of customer interaction and engagement is known as customer engagement, which refers to the interaction and relationship between customers and a brand or offer (Vivek et al., 2012). In developing customer engagement, content has an important role that is beneficial for business strategy in the marketing world. Valuable and relevant content can encourage customer engagement on social media. Therefore, regarding the success of content marketing, in 2020, the Content Marketing Institute (CMI) stated that content optimization is currently the aspect that brands focus on. This research selected five local beauty product brands consisting Wardah, Avoskin, Make Over, Scarlett Whitening, and Somethinc as the object of research since the research regarding the effect of factors of content marketing on customer engagement on the local beauty product industry involving the Indonesian people as research samples were still rarely found.

2. LITERATURE REVIEW

2.1 Customer Engagement

Customer Engagement is a form of commitment, trust, and involvement of an individual to something. This concept is a psychological process expressed in customer loyalty to an item or service and a mechanism for fostering customer loyalty to repurchase (Bowden, 2009). Vivek et

al. (2012) stated that customer engagement refers to the level of interaction and relationship between consumers and a brand or offer.

2.2 *Content Marketing*

Content marketing is a management process to identify, anticipate, and satisfy customer needs in the context of digital content or bit-based objects distributed over electronic channels. (Rowley, 2008).

2.2.1 *Post Type*

Post type is an indicator to be considered to attract customer engagement (Kim & Yang, 2017; Pletikosa Cvijikj & Michahelles, 2013; Sabate et al., 2014; Swani et al., 2017). Post type is divided into three including photos containing uploaded photos, links and represent links to external URLs, and videos containing uploaded videos (Pletikosa Cvijikj & Michahelles, 2013)

2.2.2 *Timeframe Post*

Researchers have studied the time frame mainly through three perspectives namely taking into account posting published on weekdays or during weekends, arguing about the effect of publication time (hours), and considering posting seasons through analysis of different months of the year (Balio & Casais, 2021).

2.2.3 *Interactivity of Message*

According to Kim & Yang (2017), interactivity is very important in communicating and maintaining relationships. Message interactivity is the extent to which two-party communication, which is mediated in two directions, is controllable and responsive (Mollen & Wilson, 2010).

2.2.4 *Post Appeal*

Wang et al. (2017) found that message attractiveness had a significant effect on customer engagement on social media. Approaches are divided into rational and emotional approaches (Bagozzi et al., 1999).

3. RESEARCH METHOD AND HYPOTHESIS

This study analyzed the effect of content marketing consisting of 4 variables namely, post type, timeframe post, interactivity of message and post appeal on customer engagement on local beauty products on Instagram in Indonesia. This research is a conclusive research design because this research was using a large and representative sample. The data obtained from this research will be analyzed quantitatively. This study is also a descriptive study, where the purpose of this study is to describe the characteristics and functions of certain variables (Malhotra et al., 2017). The sampling technique was carried out using purposive sampling, this method was chosen because the researchers applied specific criteria for respondents who would fill out the questionnaire.

Respondents must meet the criteria or conditions that have been determined by the researcher. The criteria are that the respondent is an Instagram social media user and has been exposed to content from one of the local Indonesian beauty brands in the last six months (Wardah, Avoskin, Scarlett Whitening, Somethinc, Make Over). Primary data was collected through a questionnaire online using a google form. Referring to Malhotra et al (2011), this study uses structured questionnaire questions. Questionnaires distributed by the researchers is a questionnaire that can be filled by the respondent (self-administered questionnaire). This study uses the structural equation modeling method of partial least squares (SEM-PLS) analysis using SmartPLS software. This study will measure content marketing which is an unobserved variable, which cannot be measured directly, but through indicators or observed variables (post type, post timeframe, post appeal, and message interactivity) in the form of a set of questions or statements in an instrument (questionnaire) with a certain scale. This method allows researchers to simultaneously examine the interrelated dependence relationships between measurement variables and latent variables, as

well as between latent variables (Malhotra et al., 2011). Based on research references using the SEM method, the correct size of the minimum sample is 200 respondents (Kline, 2016).

This study adopts the previous research model conducted by Balio (2017) with the title A Content Marketing Framework to Analyze Customer Engagement on Social Media. In this study, social media Facebook is the main focus, with the amount of secondary data from Facebook being the main object of research. This model is able to describe in detail the relationship between variables regarding the form of reaction and the factors that influence it on customers on Facebook. However, empirically different social media have basic characteristics and differences in the form of customer engagement. If engagement on Facebook is in the form of likes, comments, shares, and reactions; Instagram has engagement in the form of likes and comments, so the factors that influence customer engagement will also be different. Therefore, this research wants to study other social media besides Facebook, namely Instagram which is the focus of the research. This research model can also be used to assist in analyzing customer engagement more specifically on Instagram, to understand the influence of certain factors on the content shared with customers. Many previous studies have focused only on likes and comments (De Vries et al., 2012; Sabate et al., 2014; Erkan, 2015; Coelho et al., 2016), and therefore, this research model is used because it can provide a more in-depth framework, by adding variables from marketing content that affect customers on social media.

H1: The post type of the post has a positive effect on customer engagement

H2: Timeframe of the post has a positive influence on customer engagement

H3: Message Interactivity has a positive influence on customer engagement

H4: Post appeal has a positive influence on customer engagement

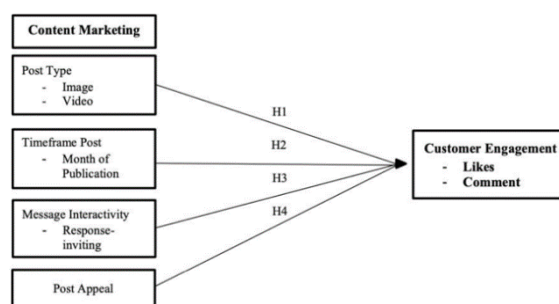


Figure 3.1 Research Model

4. RESULTS

4.1 Pretest Testing

4.1.1 Validity And Reliability Testing

Based on the results of the validity and reliability tests on the pretest, which got 34 respondents, it can be seen that all research variables can be used and are declared valid. This is because overall the variables used have a KMO-MSA value of more than 0.5. In addition, the significance value of the Bartlett Test for each variable is below 0.05, which is .000. Not only based on these two values, but in conducting the validity test it can also be seen by looking at the factor loading value which must be greater than 0.5, the results show that the factor loading value of all indicators meets the reference value of 0.5. Then, the results of the reliability test showed that all the variables used in this study had good reliability values. This can be seen from the value of cronbach's alpha for each variable > 0.7 .

4.2 Respondent's Profile

Surveys conducted through Google form are sent via social media to customers. After ten days of conducting the survey, the results obtained 225 valid surveys, meeting the requirements for the number of sample sizes. Most of the respondents are women (82%) and the majority are between 16 – 25 years old (63%), and 53% live in JABODETABEK. Then, most of the respondents are students (37%) and have an income of around IDR 1 billion - 5 billion. The intensity of 93

respondents being exposed to content in the last 6 months is 1-3 times, with the majority of reasons using Instagram to find the product information they want to buy.

4.3 Outer Model

The outer model, also known as the outer relation or measurement model, defines how each indicator block relates to its latent variables.

4.3.1 Validity and Reliability Testing

Table 4.1 Validity and reliability testing

Variable	Indicator	Convergent Validity			Internal Consistency Reliability		
		Outer Loadings	AVE	Desc	Composite Reliability	Cronbach's Alpha	Desc
Customer Engagement	CE01	0,787	0,683	Valid	0,866	0,768	Reliable
	CE02	0,877		Valid			
	CE03	0,813		Valid			
Message Interactivity	IP01	0,774	0,522	Valid	0,845	0,780	Reliable
	IP02	0,771		Valid			
	IP03	0,728		Valid			
	IP04	0,692		Valid			
	IP05	0,639		Valid			
Post Appeal	PA01	0,801	0,585	Valid	0,808	0,643	Reliable
	PA02	0,798		Valid			
	PA03	0,689		Valid			
Post Type	PT01	0,709	0,503	Valid	0,834	0,763	Reliable
	PT02	0,661		Valid			
	PT03	0,676		Valid			
	PT04	0,798		Valid			
	PT05	0,695		Valid			
Timeframe of Post	TP01	0,786	0,523	Valid	0,766	0,546	Reliable
	TP02	0,735		Valid			
	TP03	0,641		Valid			

The results of data processing can be seen above, showing that the value of the outer model or the correlation between the construct and the variable has an outer loading value of > 0.5 so that the outer loading so that all indicators are declared valid. At the convergent validity test, it is also seen by the Average Variance Extracted (AVE) value of each variable. The results of data processing can be seen above, showing that the value of AVE > 0.5 so that the outer loading so that all indicators are declared valid. Composite Reliability is the part used to test the reliability of variable indicators. Variables can be said to meet composite reliability if the composite reliability value of each variable is > 0.70 (Hair et al., 2017). Based on the data in the table above, it shows that each variable has Composite Reliability > 0.70 , so all variables are declared reliable. The composite reliability test above can be strengthened by using Cronbach's Alpha value. A variable can be said to be reliable if it has Cronbach's Alpha > 0.70 but if the value is > 0.50 it is still said to be reliable (Hair et al., 2017). Based on the data in the table above, all variables have a value of more than 0.50, so all variables are declared reliable.

4.4 Inner Model

Inner model testing is the development of the concept and theory-based models in order to analyze the relationship between exogenous and endogenous variables that have been described in the conceptual framework.

4.4.1 Multicollinearity Testing and R-Square

Table 5.2 R-Square and Multicollinearity Testing

Variable	VIF	R-Square
Message Interactivity → Customer Engagement	2,055	0,302
Post Appeal → Customer Engagement	1,703	
Post Type → Customer Engagement	2,030	
Timeframe of Post → Customer Engagement	1,427	

The purpose of this multicollinearity test is to determine multicollinearity between variables by assessing the correlation between independent variables, it is said that multicollinearity does not occur if the VIF value is < 5 (Ghozali et al., 2015). From each VIF variable < 5 , it does not violate the multicollinearity test. From the results of the R-square, the simultaneous effect of the independent variable on the dependent variable is 0.302 or 30.2%, which means it is included in the low category because it is below 0.33.

4.4.2 Goodness of Fit

$$\begin{aligned}
 \text{GoF} &= \sqrt{AVE \times R^2} \\
 &= \sqrt{(0,5632 \times 0,302)} \\
 &= 0,227
 \end{aligned}$$

From the results above, it can be said that this study has a moderate model because the GoF value is greater than 0.25, less than 0.38.

4.4.3 Hypothesis Testing

The results show that the t-statistic value of message interactivity on customer engagement is smaller than the t-table (1.967) which is 1.968 with a large effect of 0.176 and a P-value > 0.05 of 0.050. So it can be concluded that the effect of message interactivity on customer engagement is positive and not significant. The t-statistic value of the influence of post appeal on customer engagement is greater than t-table (1.967) which is 1.993 with a large effect of -0.136 and P-value < 0.05 of 0.054 so that it can be concluded that the effect of post-appeal on customer engagement is negative and significant. The t-statistic value of the effect of post type on customer engagement is greater than t-table (1.967) which is 2.771 with a large effect of 0.208 and P-value > 0.05 of 0.006 so that it can be concluded that the effect of post type on customer engagement is positive and significant. The t-statistic value of the effect of a timeframe of post on customer engagement is greater than t-table (1.967) which is 4.944 with a large effect of 0.355 and P-value > 0.05 of 0.000 so it can be concluded that the effect of a timeframe of post on customer engagement is positive and significant.

5 CONCLUSION

This study empirically examines the influence of content marketing factors on customer engagement on Instagram. The results show that there are three factors in content marketing that have a positive and significant effect on customer engagement, namely the type of post, timeframe post, and interactivity of the message. However, there is one negative variable that does not significantly or does not affect customer engagement, namely the post appeal.

REFERENCE

- Ahmad, N. S., Musa, R., Harris, M. and Harun, M. (2016) The Impact of Social Media Content Marketing (SMCM) towards Brand Health. *Procedia Economics and Finance*, 37, pp. 331-336.
- Bagozzi, R. P., Gopinath, M. and Nyer, P. U. (1999) The Role of Emotions in Marketing. *Journal of the Academy of Marketing Science*, 27(2), pp. 184- 206.
- Bambang Winarso. (17 September 2015). Apa Itu Instagram, Fitur dan Cara Menggunakannya?. <https://dailysocial.id/post/apa-itu-instagram>. Diakses pada 15 September 2021

- Bowden, J. L.-H. (2009). The process of customer engagement: a conceptual framework. *Journal of Marketing Theory and Practice*, 17(1), 63–74. doi:10.2753/MTP1069-6679170105
- Coelho, R. L. F., Oliveira, D. S. D. and Almeida, M. I. S. D. (2016). Does social media matter for post typology? Impact of post content on Facebook and Instagram metrics. *Online Information Review*, 40, pp. 458-471.
- Cvijikj, I. P., & Michahelles, F. (2013). Online engagement factors on Facebook brand pages. *Social Network Analysis and Mining*, 3(4), 843–861. doi:10.1007/13278-013-0098-8
- De Vries, L., Gensler, S. and Leeftang, P. S. H. (2012) Popularity of Brand Post on Brand Fan Pages: An Investigation of the Effects of Social Media Marketing. *Journal of Interactive Marketing*, 26, pp. 83-91.
- Go, E., & Bortree, D. S. (2017). What and how to communicate CSR? The role of CSR fit, modality interactivity, and message interactivity on social networking sites. *Journal of Promotion Management*, 1–21.
- Holliman, G. and Rowley, J. (2014) Business to business digital content marketing: marketers' perceptions of best practice. *Journal of Research in Interactive Marketing*, 8(4), pp. 269-293. <http://dx.doi.org/10.1111/j.1460-2466.1992.tb00812.x>
- Kim, C. and Yang, S.-U. (2017) Like, comment, and share on Facebook: How each behavior differs from the other. *Public Relations Review*, 43(2), pp. 441- 449.
- Mollen, A. and Wilson, H. (2010) Engagement, telepresence and interactivity in online consumer experience: Reconciling scholastic and managerial perspectives. *Journal of Business Research*, 63(9), pp. 919-925.
- Monavia Ayu Rizaty. (3 Agustus 2021). Inilah Negara Pengguna Instagram Terbanyak, Indonesia Urutan Berapa?. <https://databoks.katadata.co.id/datapublish/2021/08/03/inilah-negara-pengguna-instagram-terbanyak-indonesia-urutan-berapa> . Diakses pada 12 September 2021
- Patrutiu, B. L. (2015) Content marketing - the fundamental tool of digital marketing, Series V: Economic Sciences, 8(57), pp. 111-119.
- Pletikosa-Cvijikj, I. and Michahelles, F. (2013) Online engagement factors on Facebook brand pages. *Social Network Analysis and Mining*, 3, pp. 843- 861.
- Pulizzi J. and Rose R. (2011) *Managing Content Marketing*, CMI Books of Z Squared Media, Cleveland Ohio.
- Rowley, J. (2008) Understanding digital content marketing. *Journal of Marketing Management*, 24(5-6), pp. 517–540.
- Ryan, S. Kevin, and Zabin Jeff. 2010. "Gleansight: Social Media Marketing". Gleanster LCC, 21.
- Sofia Balio, Beatriz Casais. (2021). A Content Marketing Framework to Analyze Customer Engagement on Social Media.
- Steuer, J. (1992) Defining Virtual Reality: Dimensions Determining Telepresence. *Journal of Communication*, 42, 73-93.
- Trong Nhan PHAN, Truc Vi HO, Viet Phuong LE-HOANG (2020). The Impact of Content Marketing on Customer Engagement on Instagram – A Case Study Of Fashion Brands. *International Journal of Management (IJM)*. pp. 859- 868
- Vivek, S. D., Beatty, S. E. and Morgan, R. M. (2012) Customer Engagement: Exploring Customer Relationships Beyond Purchase. *Journal of Marketing Theory and Practice*, 20(2), pp. 122–146. doi:10.2753/mtp1069- 6679200201.
- Wagner, T. F., Baccarella, C. V. and Voigt, K.-I. (2017) Framing social media communication: Investigating the effects of brand post appeals on user interaction. *European Management Journal*, 35(5), pp. 606–616.
- Wang, R., Kim, J., Xiao, A. and Jung, Y. J. (2017) Networked narratives on Humans of New York: A content analysis of social media engagement on Facebook. *Computers in Human Behavior*, 66, pp. 149-153.

The Impact of the President Director's Gender, Age, and Education on Cash Holding Before and During the COVID-19 Pandemic (Empirical Study on All Non-Financial Companies Listed on the Indonesia Stock Exchange for the 2018-2020 Period)

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ABSTRACT: This study aims to see how the president director's gender, age, and education impact cash holding policy before and during the pandemic. The population of this study is all non-financial firms registered on the Indonesia Stock Exchange for the 2018-2020 term. Purposive sampling was used to collect 1194 samples. Panel data analysis with fixed effects and an interaction test by multiplying the independent variable by the dummy variable COVID-19 was selected as the analytical method. The presence of age and education factors is a unique feature because previous research in Indonesia has not incorporated these characteristics as far as we know. Gender and age had a substantial positive influence on cash holding, while education had no effect. During the COVID-19 pandemic, all companies increased their cash holdings. As a moderating variable, COVID-19 could not explain the association between gender, age, and education on cash holding.

1 INTRODUCTION

The high level of economic uncertainty caused by the current COVID-19 outbreak is a challenge for most businesses. Poor market circumstances will put strain liquidity and make it harder to maintain output, capital turnover, and even make loan payments (De Vito & Gómez, 2020). A company's cash is a liquid asset. The precautionary motive is one of the most essential reasons to have cash on hand (Opler et al., 1999). Cash protects against the danger of insolvency and protects against negative cash flow shocks. When alternative sources of funding are unavailable, cash may be a lifesaver for businesses looking to fund their operations. External finance becomes more expensive than internal resources in an imperfect market like Indonesia. As a consequence, in the event of a pandemic, businesses must rely on internal resources such as financial reserves to stay afloat. As a reason, the company's cash holdings constitute an important part of its capital structure. (Fakoya, 2017)

The current crisis in Indonesia is not the first; in 1997-1998, Indonesia had a crisis caused by failure to implement good corporate governance (GCG). This cannot be separated from the role of executives who are ineffective in overseeing corporate governance and proving that corporate governance implementation in Indonesia is still very poor. The diversity of the board of directors is a corporate governance technique that may be used to implement good governance. According to Gill & Shah (2012), the board of directors and the principal director are in charge of the organization's financial management, corporate governance, and all other rules. As an adherent of a two-tier system, Indonesia, where functions are separated between the board of directors (executive) and the commissioners (supervisor), is more prone to conflict between the board of directors and the board of commissioners.

As the person in charge of strategic decision-making, the president director can be impacted by a variety of factors, including intellectual and emotional considerations and psychological issues affecting the director himself. In the concept of upper echelon theory developed by Hambrick & Mason (1984) senior managers have a significant impact on the company's strategy and performance through the decisions they make. Due to the difficulty in obtaining psychometric data for a leader, Hambrick & Mason (1984) and Hambrick (2007) state that when predicting a

leader's strategic steps, one can use observable characteristics of the leader, such as age, gender, experience, and level of education, which can reflect the leader's cognitive differences.

The goal of this study is to see if the president director's gender, age, and education have an impact on cash holding, if there are differences in cash holding before and during the pandemic, and if COVID-19 can moderate the effect of the president director's gender, age, and education on cash holding. The sample used is all non-financial companies listed on the Indonesia Stock Exchange for the 2018-2020 period. As analytical methods, panel data regression analysis and the interaction test with COVID-19 as a moderating variable were applied. The age and education variables are novel in this study since they have not been included in earlier research in Indonesia. There are also changes in research time, with this study focusing on the period before and during the pandemic.

2 METHODOLOGY

The sample includes all non-financial companies listed on the Indonesian stock exchange for the 2018-2020 period and using the purposive sampling method for the sample selection. The data in this study is secondary data obtained from the annual report and the company's annual financial report based on the company's official website and the website (<https://idx.co.id>)

The dependent variable is cash holding which is symbolized by "CH". The measurement of cash holding referred to the research of Xu et.al (2019), Suherman (2017), Zeng & Wang (2015) CH are the ratio of cash and cash equivalents to total assets. Concerning the research of Zeng & Wang (2015), Seherman (2021), Rocca et.al (2019), the independent variable in this study, gender, is symbolized by "Gend," which is worth one if the president director is female and 0 if the main director is male. According to Cline & Yore (2016), Zeng & Wang (2015), Setiawan & Gestanti (2016), the second independent variable is age, which is indicated by "AGE." Age is calculated based on the age of the president director. The president director's education level is indicated by "EDU," and the value is 0 if the main director's education is Bachelor (S1) or below, and one if the main director's education is Postgraduate (S2) or above.

This research includes control variables since it is undeniably devoid of endogeneity issues. Control variables were chosen with attention and based on research (Xu et al., 2019; Abdiolu, 2016; Ajanthan & Kumara, 2017, Suherman et al., 2021). The control variable is firm size (Size), which is Ln from the total asset, net working capital (NWC), which is current assets minus current liabilities divided by total assets, dividend payment (Div), which is worth one if the company pays dividends and 0 otherwise, growth sales (SG), which is sales for the current year minus sales from the previous year divided by sales from the previous year, and leverage (lev), which is the ratio of debt to total assets. There is also a dummy COVID-19 variable in this study that will be used as a moderating variable when conducting interaction tests. Based on the variables used the research model for panel data regression analysis is as follows:

$$CH = \alpha + \beta_1 Gend_{it} + \beta_2 AGE_{it} + \beta_3 EDU_{it} + \beta_4 Size_{it} + \beta_5 NWC_{it} + \beta_6 SG_{it} + \beta_7 Div_{it} + \beta_8 Lev_{it} + \beta_9 DmC_{it} + e \quad (1)$$

Meanwhile, the interaction test is carried out by multiplying the dependent variable by the crisis dummy variable, generating the following equation:

$$CH = \alpha + \beta_1 Gend_{it} + \beta_2 AGE_{it} + \beta_3 EDU_{it} + \beta_9 DmC_{it} + \beta_4 Gend * DmC_{it} + \beta_5 Age_{it} * DmC_{it} + \beta_7 Edu_{it} * DmC_{it} + e \quad (2)$$

3 RESULT

A total of 1194 observations, the study sample included 398 non-financial companies listed on the Indonesia Stock Exchange. The study's findings began with statistical descriptive tables and tables of gender frequency and education of the president director in tables 1 and 2, respectively:

Table 1. Data Statistic descriptive

	CH	GEND	AGE	EDU	SIZE	NWC	DIV	SG	LEV	DMC
Mean	0.085	0.081	54.369	0.387	28.686	0.142	0.459	0.013	0.476	0.333
Median	0.057	0.000	54.000	0.000	28.657	0.121	0.000	0.019	0.478	0.000
Maximum	0.690	1.000	83.000	1.000	33.495	0.893	1.000	1.863	1.468	1.000
Minimum	0.000	0.000	25.000	0.000	23.470	-0.83	0.000	-0.95	0.016	0.000
Std. Dev.	0.083	0.273	9.544	0.487	1.702	0.248	0.499	0.313	0.23	0.472
Observations	1194	1194	1194	1194	1194	1194	1194	1194	1194	1194

Table 2. Sociodemographic of President Director

Characteristic	Frequency (n =1194)	Percent (100%)
Gender		
Male	1097	91.88
Female	97	8.12
Educational Level		
Bachelor and lower	732	61.31
postgraduate and up	462	38.69

Based on descriptive statistics, it is known that the average cash holding company ownership is still relatively low, and the average age of the president director is 54 years, with the youngest director being 25 years old and the oldest being 83 years old. According to table 2, the number of males who served as president directors was 1097 (91.88%), while the number of major directors with a postgraduate education level or higher was 462 (38.69%).

The regression was carried out using the fixed effects method, but due to problems with heteroscedasticity, correlation, and cross-sectional dependence, a GLS weighting, which is cross section weight, was used to overcome the heteroscedasticity problem, and robust coefficient covariances were used with the Cross-section SUR (PCSE) method to overcome the cross-sectional correlation problem. The model is immune to heteroscedasticity, serial autocorrelation, and cross-sectional interdependencies. Table 3 displays the regression findings:

Table 3. Panel data regression

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.767161	0.027876	27.52004	0.0000
GEND	0.010068	0.001810	5.561393	0.0000
AGE	0.000276	0.000104	2.656308	0.0081
EDU	-0.001436	0.001056	-1.359801	0.1743
SIZE	-0.024593	0.000926	-26.56353	0.0000
NWC	0.096952	0.001129	85.87701	0.0000
DIV	0.002232	0.000522	4.274580	0.0000
SG	0.010840	0.000715	15.15333	0.0000
LEV	-0.019460	0.005321	-3.657475	0.0003
DMC	0.013083	0.000319	41.03930	0.0000

According to the results of panel data regression, female president directors and older directors have a significant positive effect on cash holding, implying that they have more significant cash holdings than their counterparts (Suherman, 2021), (Ting et al., 2015), (Zeng & Wang, 2015), (Xu, et al., 2019), (Serfling, 2014). One of the main reasons companies hold high cash holdings is the precautionary motive (Rocca et al., 2019), and less concern for the opportunity costs of the cash (Zeng & Wang, 2015) which can harm shareholders (Suherman, 2021). Furthermore, compared to male and younger directors, female and older directors prefer to avoid risk as a precautionary motive, hold large quantities of cash as a liquidity buffer against unexpected circumstances, or take advantage of growth opportunities and reduce the problem of financial restrictions. The high cash holdings of the president directors shows that they carefully avoid overinvesting which can lead to agency conflicts with shareholders thereby minimizing agency costs and potentially increasing shareholder wealth (Suherman, 2021).

The president director's education has no impact on cash holding. This is in contrast to the findings by Zeng & Wang (2015), who found that CEO education had a substantial impact on cash holding, with president directors with a higher education level having more cash than president directors with a lower education level. Because the findings of this study are insignificant, both the president director with an undergraduate education level or lower and the main director with a master's degree or higher have no effect on the level of risk, where the lower level of education tends to avoid risk, and also on the precautionary motive. The control variable discovered that company size has a significant negative influence on cash holding; small-scale businesses are still obtaining funding in the model market, so they keep a lot of cash on hand. The effect of net working capital on cash holding is a significant positive. Companies hold more cash with higher net working capital and capital expenditures. Sales growth has a significant positive impact on cash holdings. This is in accordance with the higher growth opportunities, the company tends to hold or increase the amount of its cash holding. Dividend payments have a significant positive impact on cash holdings. Continuous dividend payments encourage companies to have more cash on hand to prevent financial shortages when it comes time to pay dividends in the next period (Zeng & Wang, 2015).

Leverage has a significant negative impact on cash holdings. This is consistent with the pecking order theory, which states that companies should fund their investment possibilities first with internal cash. Considering dummy COVID-19 has a significant positive effect on cash holdings, it may be argued that the company had huge cash holdings during the pandemic. This is in agreement with the results of Al-Amarneh (2015), Lian et al., (2011), and Sutrisno & Gumanti (2017), who found that when the financial disaster happen, companies prefer to increase their cash holdings. This is due to a precautionary motive during the COVID-19 pandemic and as an effort to meet liquidity.

COVID-19 is known to be unable to moderate the gender, age, and education relationships to cash holding in the interaction test shown in table 4. The results' insignificance indicates that COVID -19 does not affect the cash holding policy based on gender, age, and educational level. This is consistent with the prior test, which stated that when faced with uncertain financial situations, such as the present disease outbreak crises, the president directors both males and females, younger and older, and with lower and higher education levels, preferred to increase their cash holdings, regardless of gender, age, or educational level.

Table 4. Interaction Test

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.078401	0.018916	4.144787	0.0000
GEND	0.024415	0.011515	2.120209	0.0342
AGE	5.75E-05	0.000333	0.172570	0.8630
EDU	-0.003798	0.006301	-0.602762	0.5468
DMC	0.008658	0.018506	0.467836	0.6400
GEND * DMC	-0.004477	0.011391	-0.393016	0.6944
AGE * DMC	-2.48E-05	0.000324	-0.076337	0.9392
EDU * DMC	0.004386	0.006399	0.685451	0.4932

4 DISCUSSION

There are differences in characteristics in managing cash holdings between women and men, and older directors and young directors, which can add color to the company's management process. It may be better if the company has a diversity of boards of directors to complement each other. For shareholders apart from the growing debate about the effectiveness of having female board members, there is an interesting aspect of the role of female board members, which can bridge the concept of engaging female executives (theoretically) related to corporate policy (practically). It is important to understand a company's cash policy and assess whether it will benefit or harm shareholders. Because female chief directors are still uncommon in developing countries, authorities might build governance procedures to enhance diversity on the board of directors by promoting female chief directors (e.g., Indonesia). With respect to older president directors, the

company's board and shareholders should closely monitor the investment decisions made by these directors, as their experience, competence, and knowledge may reflect their personal preferences.

The limitation of the research is that it only used a sample of non-financial companies listed on the Indonesia Stock Exchange. Further research can use non-financial companies and financial companies. In addition, this study could not find out whether the actual amount of cash holding held by female president director is optimal or actually indicates an excess of cash.

REFERENCES

- Abdioğlu, N. (2016). Managerial Ownership and Corporate Cash holdings: Insights from an Emerging Market. *Business and Economics Research Journal*, 29-41.
- Adhikari, B. K. (2017). Female Executives and Corporate Cash holdings. *Applied Economics Letters*.
- Ajanthan, A., & Kumara, K. U. (2017). Corporate Governance and Cash holdings: Empirical Evidence from an Emerging Country, Sri Lanka. *International Journal of Accounting and Financial Reporting*.
- Al-Amarneh, A. (2015). Corporate Cash Holdings and Financial Crisis: Evidence from Jordan. *International Business Research*.
- B.Sah, N. (2021). Cash is Queen: Female CEOs' propensity to hoard cash. *Journal of Behavioral and Experimental Finance*.
- Chireka, T., & Fakoya, M. B. (2017). The determinants of corporate cash holdings levels: evidence from selected South African retail firms. *Investment Management and Financial Innovations*.
- Cline, B. N., & Yore, A. S. (2016). Silverback CEOs: Age, experience, and firm value. *Journal of Empirical Finance*, 169-188.
- De Vito, A., & Gómez, J.-P. (2020). Estimating the COVID-19 cash crunch: Global evidence and policy. *Journal of Accounting and Public Policy*, 39(2)
- Gill, A., & Shah, C. (2012). Determinants of Corporate Cash holdings: Evidence from Canada . *International Journal of Economics and Finance*.
- Hambrick, D. C., & Mason, P. A. (1984). Upper Echelons: The Organization as a Reflection of Its Top Managers. *The Academy of Management Review*, 193-206.
- Lian, Y., Sepehri, M., & Foley, M. (2011). Corporate Cash Holdings and Financial Crisis: An Empirical Study of Chinese Companies. *Eurasian Business Review*.
- Opler, T. (1999). The determinants and implications of corporate cash holdings. *Journal of Financial Economics*, 52(1), 3-46.
- Rocca, M. L., Rocca, T. L., Staglianò, R., Vecellio, P., & Montalto, F. (2019). Gender diversity, cash holdings and the role of the institutional environment: empirical evidence in Europe. *Applied Economics*, 3137-3152.
- Serfling, M. A. (2014). CEO age and the riskiness of corporate policies. *Journal of Corporate Finance*, 251-273.
- Setiawan, R., & Gestanti, L. (2018). CEO Education, Karakteristik Perusahaan dan Kinerja Perusahaan. *Jurnal Ilmu Manajemen*, 101-109.
- Suherman. (2017). Pengaruh CEO Wanita Terhadap cash holding Perusahaan. *Jurnal Ilmiah Manajemen*, 48 - 58.
- Thomas W. Bates, Kahle, K. M., & ' , R. M. (2009). Why Do U.S. Firms Hold So Much More Cash than They Used To? *The Journal of Finance*.
- Ting, I. W., Azizan, N. A., & Kweh, Q. L. (2015). Upper Echelon Theory Revisited: The relationship between CEO Personal Characteristics and Financial Leverage Decision . *World Conference on Technology, Innovation and Entrepreneurship* , 686 - 694.
- Williams, K.Y. and O'Reilly, C.A. (1998), "Demography and diversity in organizations: a review of 40 years of research", in Staw, B.M. and Cummings, L.L, (Eds), *Research in Organizational Behaviour*, JAI Press, Greenwich, pp. 77-140.
- XiongXu, Li, W., Li, Y., & XingLiu. (2019). Female CFOs and corporate cash holdings: Precautionary motive or agency motive? *International Review of Economics & Finance*, 434-454.
- Zeng, S., & Wang, L. (2015). CEO gender and corporate cash holdings : are female CEOs more conservative? *Asia-Pacific journal of accounting & economics : APJAE* . , 449-474

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Factors Influencing Intention to Use Card-less Automatic Teller Machine (ATM): An Integration of TAM and TPB

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ABSTRACT: This study aims at examining the factors that influence users' behavioral use of card-less ATMs to simplify their cash withdrawal through ATMs in Indonesia. Data were collected from 423 respondents with 5-point Likert Scale questions and distributed through an online survey. Respondents are Indonesian Bank customers who never had an experience using card-less ATMs. The integration of TAM and TPB with external variables was used as a conceptual framework. The Structural Equation Model (SEM) was adopted using SPSS and Partial Least Square (PLS) to verify the hypotheses. The results of this study indicate that perceived usefulness, attitude, subjective norms, and perceived credibility affected significantly and positively behavioral intentions to use card-less ATMs in Indonesia. This study contributes to the current literature on consumer behavior in the card-less ATM context. The results are expected to inform practitioners (i.e., banks), customers, and academicians.

1 INTRODUCTION

Digital technology has emerged as one of the most rapidly growing industries in the last 40 years (Gupta et al., 2019). Even though people use digital payments, cash circulation still increases. In Asia, online purchases rose, but 75% of payments were still made in cash (Harnal, 2020). This has led the banking sector to provide better services for consumers (Anouze & Alamro, 2020). ATMs are still the easiest way to withdraw and deposit cash beside office branches. However, many problems are caused by the usage of ATM cards like phishing, carding, and skimming. To overcome the disadvantages of using debit cards, banks propose card-less transactions. Card-less ATM is a new technology service without inserting physical cards into the machine. Consumers can use mobile banking to withdraw or deposit cash in ATMs. After inputting a mobile number, a mobile banking app can produce a One-Time Password (OTP). It became invalid within half an hour. Once you enter your mobile number and OTP, the ATM will process the transaction (Phothikitti, 2020).

However, to offer a robust model, many researchers recommended that TAM is needed to be given as an additional variable. An integration between TAM and TPB may guide strategic planning in commercial banks for decision-making when providing information to customers related to banking services.

2 LITERATURE REVIEWS

2.1 *Technology Acceptance Model (TAM) and Theory of Planned Behavior (TPB)*

The intention to use a variant type of information system (IS) has been considered one of the most necessary research topics in the IS discipline (Tobias-Mamina & Maziriri, 2020). Many researchers applied TAM to inspect the influence of the two variables, namely perceived usefulness and perceived ease-of-use, to illustrate customer acceptance of new technology. In addition, many scholars found that in IS case, TAM only portrays product and service partially. While other scholars consider that customers characteristics and social factors should be integrated and examined simultaneously.

2.2 *Perceived Usefulness*

Perceived usefulness generates several results, i.e., higher performance, productivity, effectiveness, efficiency cost. Customers will have a beneficial perception of new technology if the task is completed quickly (Ali et al., 2021). Hence, the acceptance rate of card-less ATMs will increase if there is a positive influence on the perceived usefulness of this technology.

H1: Perceived usefulness has a significant and positive influence on intention to use card-less ATMs.

2.3 *Perceived Ease-of-use (PEU)*

PEU describes a factor that encourages customers to use the system if the systems are accessible and user-friendly (Hua & Wang, 2019). Previous studies have shown that PEU had a significant effect on the use of mobile banking by customers. If it is less efficient and technically difficult, customers may feel hesitant and avoid using it (Tobias-Mamina & Maziriri, 2020). This study has examined the relationship between PEU and intention to use on the suggested model.

H2a: Perceived ease-of-use has a significant and positive influence on perceived usefulness

H2b: Perceived ease-of-use has a significant and positive influence on intention to use card-less ATM

2.4 *Subjective Norm*

Perceived social pressure to participate or not in behavior is described by subjective norms. Subjective norm is self-confidence about social expectations (Tobias-Mamina & Maziriri, 2020). The model used in this study was employed to demonstrate adoption intention, which included subjective norms as a social influence predictor.

H3: Subjective norm has a significant and positive influence on intention to use card-less ATM

2.5 *Attitude*

Attitude defines common sense from individual sight towards technology usage. Customers' perception of new technology can be positive or negative (Hua & Wang, 2019). In addition to having a role as a supporter of other constructs, attitude could also play a role as a direct factor influencing customers' intention to use. Moreover, attitude is one of the potent constructs influencing customers using the product or service (Hua & Wang, 2019). Customers tend to use card-less ATMs often if they find positive feelings toward this technology.

H4: Attitude has a significant and positive influence on intention to use card-less ATMs.

2.6 *Perceived Behavioral Control (PBC)*

PBC explains customers' belief in control factors that may support or obstruct their operating technology (Tobias-Mamina & Maziriri, 2020). Internet network, facility, cost, time, and skills are external circumstances unrelated to individual control but have influenced their intention to engage in a particular practice (Sumaedi et al., 2020).

H5: Perceived Behavioral Control has a significant and positive influence on intention to use card-less ATM

2.7 *Perceived Credibility*

Customer security and privacy are significant dimensions associated with perceived credibility. Many studies have shown the significant influence of credibility on the acceptance of banking products and services. Moreover, the willingness of customers to use card-less ATMs depends on perceived credibility. The higher credibility of the new technology, the lower risk is connected with it. (Hanafizadeh et al., 2014).

H6: Perceived credibility has a significant and positive influence on intention to use card-less ATM

2.8 Information on Card-less ATM

The adoption of new technology is beneficial to create awareness between customers about the availability of this service and the added value that it proposes. The amount of information from banks to customers is one of the factors influencing customers using card-less ATMs (Phothikitti, 2020). In the mobile banking context, customers use the amount of information to identify the product/service because they become aware of the product and service (Pikkarainen et al., 2004). **H7:** The amount of information has a significant and positive influence on intention to use card-less ATM

3 RESEARCH METHOD

The target respondents are Indonesian bank customers who had never used card-less ATMs. The questionnaire was distributed through an online survey with 5 Likert scales. There are 30 indicators divided into eight variables tested in this study. Factor loading was used to inspect the results of all indicators. The reliability test was conducted on 30 respondents occupied by Cronbach Alpha Coefficient 0.7 (Hair et al., 2010). This study used non-probability convenience sampling as participants that fit the goal have been incorporated into this survey. SPSS 26 was used to test validity and reliability among all indicators before being distributed to respondents. SmartPLS software version 3.0 was used in this study.

4 RESULTS AND DISCUSSION

The data were collected from 423 respondents. These results of factor loading, CR, and AVE are indicated that the collected data were appropriate for the measurement model of eight variables. After confirming that the measurement model was compatible with all indicators and constructs, a hypotheses test had to be conducted to determine the path between variables supporting the hypothesis. To test eight hypotheses, the minimum C.R value and P-value were compared. The results are shown in Table 1.

Table 1. Hypotheses results of the structural equation model.

Hypothesis	Path			C.R	Estimate	P-value	Results
H1a	PU	←	PEU	7,714	0,389	***	Supported
H1b	ITU	←	PU	3,738	0,224	***	Supported
H2	ITU	←	PEU	1,073	0,051	0,284	Not Supported
H3	ITU	←	PC	2,006	0,107	0,045	Supported
H4	ITU	←	AI	1,085	0,064	0,278	Not Supported
H5	ITU	←	SN	2,381	0,139	0,018	Supported
H6	ITU	←	PBC	1,157	0,072	0,248	Not Supported
H7	ITU	←	ATT	5,764	0,333	***	Supported

Attitude (5.76) was the most significant positive factor in this study. This result was in line with prior studies (Anouze & Alamro, 2020). The second factor that had compatibility with this model was perceived usefulness (3.74). Previous studies have proven that perceived usefulness was one of the potent factors related to technology acceptance (Hanafizadeh et al., 2014). The third factor was subjective norms (2.38). Sumaedi et al. (2020) stated that customers use the system if they feel social pressure from their prominent person. Another factor influencing intention to use card-less ATMs was their perceived credibility (2.01). This result is also in line with Gupta (2019) that explains that customers will motivate to use products or services from banks if the banking service provider has credibility toward security and privacy hazard. Other findings that have no significant impact include perceived ease-of-use, perceived behavioral control, and information on card-less ATMs. In addition, perceived ease-of-use had less influence on the use of technology by customers (1.07); but perceived ease-of-use had a significant influence on perceived usefulness (7.71). Another factor is that information on card-less ATM did not have a significant influence on this study (1.09). However, the previous study reported different results. According to Pikkarainen (2004) and Photikitti (2020), information on technology had a positive influence on the use of the system by customers. The last factor was perceived behavioral control, which had an insignificant influence on customers' intention to use

(1.16). This result is in line with (Sumaedi et al., 2020), which perceived behavioral control did not directly drive people to use the system.

5 CONCLUSION AND IMPLICATION

Based on statistical results, the most significant factor influencing customers' use of card-less ATMs are attitude and perceived usefulness. Card-less ATMs have considerable advantages for both banks and customers. Perceived credibility also has a significant impact to influence customers' adoption of card-less ATMs. It is suggested that banking providers ensure the security and data privacy of transactions using card-less ATMs.

This study enriches past literature by verifying the behavioral factors underlying the adoption of card-less ATMs such as attitude and subjective norms. It has also uncovered the insignificant role that appeared in perceived behavioral control on use intention by developing TPB in the context of acceptance technology. Companies could provide cashback when customers withdraw cash from cardless ATMs in the form of points that can be exchanged when customers shop or in the form of balances that are commonly applied by NeoBanks. Banks can introduce a cardless feature on podcasts and YouTube channels that have a large number of viewers. The host also should be influential enough to create a trend among their audience. Companies can also use online news portals which are come from authoritative resources that review the usage of cardless ATMs in Indonesia. These implications can increase public opinion about cardless ATMs. Second, perceived usefulness has a positive influence on the use intention. Therefore, banking companies should pay more attention to delivering the concept of the usefulness of card-less ATMs to customers. Companies could come up with practical issues that card-less ATMs overcome, such as time efficiency, that are useful to avoid crowded places during the COVID-19 pandemic. Banking companies should also be concerned about security and data privacy and ensure their customers' that card-less ATMs are secure.

6 LIMITATIONS

Based on the results of this study, there are specific limitations that should be applied in further research. The target respondents focused on Indonesian bank customers. However, most of the respondents who filled out the questionnaire live in Greater Jakarta. Therefore, further research is expected to expand coverage to other cities in Indonesia by focusing on distributing surveys to customers living outside Greater Jakarta. In addition, it should add more variables such as self-efficacy and trust to demonstrate customers' behavior in an acceptance technology context.

REFERENCES

- Ali, Q., Parveen, S., Yaacob, H., & Zaini, Z. (2021). Cardless banking system in Malaysia: An extended tam. *Risks*, 9(2), 1–16. <https://doi.org/10.3390/risks9020041>
- Anouze, A. L. M., & Alamro, A. S. (2020). Factors affecting intention to use e-banking in Jordan. *International Journal of Bank Marketing*, 38(1), 86–112. <https://doi.org/10.1108/IJBM-10-2018-0271>
- Gupta, K. P., Manrai, R., & Goel, U. (2019). Factors influencing adoption of payments banks by Indian customers: extending UTAUT with perceived credibility. *Journal of Asia Business Studies*, 13(2), 173–195. <https://doi.org/10.1108/JABS-07-2017-0111>
- Hair. (2010). *Multivariate Data Analysis.pdf* (p. 758).
- Hanafizadeh, P., Behboudi, M., Abedini Koshksaray, A., & Jalilvand Shirkhani Tabar, M. (2014). Mobile-banking adoption by Iranian bank clients. *Telematics and Informatics*, 31(1), 62–78. <https://doi.org/10.1016/j.tele.2012.11.001>
- Harnal, D. B. (2020). Cash vs. Digital (With Reference to India). *International Journal of Psychosocial Rehabilitation*, 24(5), 3183–3190. <https://doi.org/10.37200/ijpr/v24i5/pr202025>
- Hua, L., & Wang, S. (2019). Antecedents of consumers' intention to purchase energy-efficient appliances: An empirical study based on the technology acceptance model and theory of planned behavior. *Sustainability (Switzerland)*, 11(10). <https://doi.org/10.3390/su11102994>
- Phan, D. T. T., Nguyen, T. T. H., & Bui, T. A. (2019). Going beyond border? Intention to use international bank cards in Vietnam. *Journal of Asian Finance, Economics and Business*, 6(3), 315–325. <https://doi.org/10.13106/jafeb.2019.vol6.no3.315>
- Phothikitti, K. (2020). Factors Influencing Intentions to Use Cardless Automatic Teller Machine (ATM). *International Journal of Economics and Business Administration*, VIII(Issue 3), 40–56.

- <https://doi.org/10.35808/ijebe/485>
- Pikkarainen, T., Pikkarainen, K., Karjaluoto, H., & Pahnla, S. (2004). Consumer acceptance of online banking: An extension of the technology acceptance model. *Internet Research*, 14(3), 224–235. <https://doi.org/10.1108/10662240410542652>
- Sumaedi, S., Bakti, I. G. M. Y., Rakhmawati, T., Astrini, N. J., Widiyanti, T., Damayanti, S., Massijaya, M. A., & Jati, R. K. (2020). A model of intention to use official COVID-19 websites. *Health Education*, 120(4), 249–261. <https://doi.org/10.1108/HE-07-2020-0048>
- Tobias-Mamina, R., & Maziriri, E. T. (2020). Modelling Consumers' Willingness To Use Card-Less Banking Services: an Integration of Tam and Tpb. *Angewandte Chemie International Edition*, 6(11), 951–952., 12(1), 241–257.

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Adoption Intention of QR Code Payment: Development of MTAM and UTAUT2 Model Extension

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ABSTRACT: The study examined factors influencing the adoption of QR Code payments in Indonesia. Therefore, a well-established unified theory of adoption and use of technology (UTAUT2) and the newly proposed mobile technology acceptance model (MTAM) with self-efficacy theory were used to explain the behavioral intention to adopt QR Code payment. The sample data was obtained from 303 QR Code payment users in Indonesia. Furthermore, the hypotheses were tested using the Partial Least Square-Structural Equation Modelling (PLS-SEM) method using SmartPLS 3. Other than facilitating conditions and hedonic motivation, other variables, including social influence, price value, habit, mobile usefulness, mobile ease of use, mobile self-efficacy, and technology self-efficacy, were found to have a positive and significant association with the behavioral intention to adopt QR Code payments. The results also revealed interrelationships between the constructs employed. These findings may assist policymakers in addressing existing consumer concerns for a successful transition towards a cashless society.

1 INTRODUCTION

Digital payments and QR codes are gaining ground through the Quick Response Code Indonesian Standard (QRIS). In 2020, the total transactions were 15 million times, showing an increase of almost 50% from the previous year with a value of IDR1.1 trillion QR Code Indonesian Standard (QRIS). Currently, only 15% of the population regularly uses QR code digital payments. This number is significantly small compared with the total population of 270 million people. Indonesia is highly dependent on conventional banks, with 69% of the population relying on these services, hence it occupies the highest user among other ASEAN countries (VISA, 2018).

Cashless payments have become part of the crucial determinants of global economic expansion. This study aimed to explore the factors leading to the success of cashless payments among consumers. A well-established unified theory of acceptance and use of technology (UTAUT2) model and mobile technology acceptance model (MTAM) was used to capture the adoption of QR Code payment among consumers (Venkatesh et al., 2003, 2012). Ooi & Tan (2016) established MTAM from the original technology acceptance model (TAM) founded by Davis in 1989. Furthermore, the framework used in MTAM allows modification and testing with other factors influencing mobile technology (Lew et al., 2020). The primary focus in this study involved using the QR Code technology as a method for a mobile payment system (Bandura, 1982). In this case, the payment could be completed with a scan of the QR Code using the application with two specific platforms: mobile wallet (e-wallet) and mobile banking (m-banking) available in users' mobile phones.

2 LITERATURE REVIEW

2.1 *Unified theory of acceptance and use of technology*

Venkatesh et al. (2003) developed the Unified Theory of Acceptance and Usage of Technology (UTAUT). Later, the previous model was advanced by adding several variables, including hedonic motivation, habit, and price value (Venkatesh et al., 2012).

2.2 Mobile technology acceptance model

Mobile Theory Acceptance Model (MTAM) was first used by Ooi and Tan (2016) in their research entitled "Mobile technology acceptance model: An investigation using mobile users to explore smartphone credit cards." In the previous study, Ooi and Tan (2016) had used the MTAM model developed from the traditional technology acceptance model. However, the advanced MTAM model uses a more focused approach in viewing technology adoption in smartphones.

Table 1. Margin settings for A4 size paper and letter size paper.

2.3 Self-efficacy theory

Self-efficacy theory explains the level of individual confidence while carrying out an activity that is considered influential to their lives (Bandura, 1982). Therefore, this theory is used as one of the basic concepts of the technology acceptance model (TAM). Subsequently TAM proposed by Davis puts the theory of self-efficacy as the basis of perceived ease of use. TAM accommodates the notion of self-efficacy from Bandura (1982) and is conceptualized as the proximal determinant of behavior. The proximal determinant in TAM means that perceived ease of use directly influences behavior intention.

3 RESEARCH METHODOLOGY

The target population for the study involved regular users of the QR Code payment transacting across the Indonesian region. The purposive sampling method was used to single out participants who had used QR Code payments in the past 6 months to obtain relevant insights (Hussain et al., 2019; Creswell & Clark, 2011). A self-administered questionnaire with item measurements adapted from the previous study was distributed to participants with the help of Google Forms. The collected data was analyzed using Partial Least Squares-Structural Equation Modelling (PLS-SEM) with SmartPLS 3 software. Garson (2016) suggested that the first step in PLS-SEM involved assessing the measurement model to check the reliability and validity of constructs. Additionally, the structural model was assessed to test the hypotheses formed.

In total, 13 hypotheses, including looking at the relationship between social influence, facilitating conditions, hedonic motivation, price value, habit, mobile self-efficacy, technology self-efficacy, mobile usefulness, and mobile ease of use on behavioral intention, were tested. Subsequently, this study examined the relationship between mobile self-efficacy and technology self-efficacy on mobile usefulness and ease of use.

4 RESULTS AND DISCUSSION

The current study employed the Partial Least Squares-Structural Equation Modelling (PLS-SEM) method to analyze the conceptual model using SmartPLS 3. This was further followed by a two-stage analytical approach, starting with assessing the measurement model to determine its validity and reliability. The structural model assessment was also conducted to test the formulated hypotheses. The measurement model determines how each construct is measured, while the structural model provides information regarding the relationship of the constructs in the structural model.

The sample data was obtained from 303 QR Code payment users in Indonesia. In this survey, women had a proportion of 53% and males had a percentage of 47%, thus they were fairly balanced. The study's participants were mostly young, with around 97% falling between the ages of 17 and 34. The majority of the participants in this survey worked as private workers with a rate of 41%. Undergraduate graduates account for 74% of the participants' education level. The participants are separated into two broad groups based on their place of residence, West Java (40%) and DKI Jakarta (42%). This demonstrates that QR-based payments are quite popular among the millennial age. Users of QR Code payments are generally those who have worked in the private sector, and they are dominated by young employees or the millennial generation. The education level of QR Code payment consumers in this study demonstrates that they are well-educated individuals. The island of Java has the most QR Code payment users, which may be due

to the completeness of facilities and infrastructure, which is superior than other places in Indonesia.

To ensure the collected data did not contain common method bias (CMB), the Harman's single factor with ten constructs, including social influence, facilitating conditions, hedonic motivation, price value, habit, mobile self-efficacy, technology self-efficacy, mobile usefulness, mobile ease of use, and the behavioral intention was conducted (Jarvis et al., 2003). The ten constructs were then loaded into a single factor. The results indicated that the largest variance explained by the single factor accounted for 35.40%, which was below the suggested value of 50% (Jarvis et al., 2003). Therefore, the collected data showed no significant concerns in terms of CMB.

The assessment of the measurement model included examining the reliability (Cronbach's Alpha and composite reliability) and validity (convergent and discriminant validity). The Cronbach's Alpha values to test internal consistency reliability ranged between 0.940 and 0.985. These results were all higher than the threshold value of 0.7. Furthermore, it was revealed that the composite reliability (CR) values ranged between 0.939 and 0.989, which were all higher than the suggested value of 0.7. Therefore, the internal consistency reliability in terms of Cronbach's Alpha and CR was confirmed.

Factor loadings and average variance extracted (AVE) were tested to examine the convergent validity (Hair et al., 2014). The values of factor loadings fulfilled the requirements since all of them were higher than the recommended value of 0.7. The results also indicated that the AVE values ranged between 0.794 and 0.956, which were all higher than the suggested value of 0.5 (Hair et al., 2014). Given these results, the convergent validity was ascertained. Based on the previous assumptions and according to the recommendations of Hair et al. (2014), this study employed the Fornell-Larcker criterion for assessing the discriminant validity. Since all the values of the Fornell-Larcker criterion were below the suggested mark of 0.5, they were considered to be satisfied.

The structural model was the next step after confirming the measurement model. The result of structural model measurement indicated that the goodness-of-fit index was in the good fit category, and only NFI was in the marginal fit category. The findings indicated except for facilitating conditions and hedonic motivation, the remaining constructs had a significant and positive relationship with behavioral intention. Additionally, mobile self-efficacy and technology self-efficacy were proven to have a significant and positive relationship with mobile ease of use. Only the technology self-efficacy was proven to have a significant and positive relationship with mobile usefulness.

5 CONCLUSION AND IMPLICATION

This study holds important implications for service providers and QR Code payment systems innovators targeting the Indonesian market. First, the QR Code payment service providers need to attach a rational benefit to adoption. Furthermore, to promote the QR Code payment service effectively, providers should develop communication messages tailored to emphasize the core benefits of this service to lure consumers. Second, the QR Code payment innovators should carefully consider the issues associated with seasonal consumers. This will help minimize the design-reality gap of the QR Code payment service. Third, marketers should give obvious considerations to consumers' orientation of culture when planning a marketing strategy. To capitalize on social influence in a collectivist society, the service providers need to perform buzz marketing, effectively targeting and cultivating opinion leaders. These opinion leaders may be the important and superior people who create a social network with consumers and exert a powerful influence to recognize and promote the QR Code payment services. Fourth, with emerging applications and tools in the mobile commerce industry, the QR Code payment has become one of the crucial drivers for mobile commerce success in Indonesia. The current study demonstrates that consumers who utilize mobile services frequently are more likely to use QR Code payment. Therefore, the QR Code payment service providers need to closely monitor consumers' information to their financial agents or through social media. This will help predict consumers' technology usage habits towards using QR Code payment services. Finally, the findings of this study will assist the government and the relevant policymakers to govern the industry and improve the existing policies for the better use of QR Code payment at a mass level.

6 LIMITATION

Although the integrated UTAUT2 model and MTAM were validated for explaining the adoption of QR Code payments, the present study could be replicated further to confirm the model's generalization in other countries. As such, there is a need for conducting a cross-national study that could enhance the generalization of results. Additionally, despite accounting for a considerable amount of the variance in behavioral intention to adopt QR Code payment, several other factors were excluded. Future studies should eliminate the insignificant variables and extend the model to include additional variables. Finally, since this study employed a cross-sectional setting to capture data at a single point of time, future studies may consider choosing the longitudinal approach to account for the time difference.

REFERENCES

- Bandura, A. (1982). Self-Efficacy Mechanism in Human Agency. *American Psychologist*, (Vol 37 No. 2, pp. 122-147).
- Creswell, J.W., & Plano Clark, V.L. (2011). *Designing and Conducting Mixed Methods Research* (2nd ed.). Thousand Oaks, CA: Sage Publications, Inc.
- Davis, F.D. (1989). Perceived Usefulness, Perceived Ease of Use, and User Acceptance of Information Technology. *MIS Quarterly*, p. 21.
- Garson, G.D. (2016). *Partial Least Squares: Regression & Structural Equation Models*. New York: Statistical Publishing Associates.
- Hair, Jr, J.F., Hult, G.M., Ringle, C.M., & Sarstedt, M. (2014). *A Primer on Partial Least Squares Structural Equation Modelling (PLS-SEM)*. California: SAGE Publications, Inc.
- Hussain, M., Mollik, A.T., Johns, R., & Rahman, M.S. (2019). M-payment Adoption for Bottom of Pyramid Segment: An Empirical Investigation. *International Journal of Bank Marketing*, (Vol. 37 No. 1, pp. 362-381).
- Jarvis, C.B., Mackenzie, S.B., Podsakoff, P.M., Giliatt, N., & Mee, J.F. (2003). A Critical Review of Construct Indicators and Measurement Model Misspecification in Marketing and Consumer Research. *Journal of Consumer Research*, 30(2), 199–218.
- Lew, S., Tan, G.W.H., Loh, X.M., Hew, J.J., & Ooi, K.B. (2020). The Disruptive Mobile Wallet in the Hospitality Industry: An Extended Mobile Technology Acceptance Model. *Technology in Society*, (63) 101430.
- Ooi, K.B. & Tan, G.W.H. (2016). Mobile Technology Acceptance Model: An Investigation Using Mobile Users to Explore Smartphone Credit Card. *Expert System with Applications*, (Vol 59, pp. 33–46).
- Venkatesh, V., Thong, J. Y. L., & Xu, X. (2012). Consumer Acceptance and Use of Information Technology. *MIS Quarterly*, (Vol. 36, No. 1, pp. 157–178).
- Venkatesh, V., Morris, M.G., Davis, G.B., & Davis, F.D., 2003. User Acceptance of Information Technology: Toward a Unified View. *MIS Quarterly*, (Vol. 27 No. 3, pp. 425-478).
- Visa. (2020). Rise of the Digitally Engaged Consumer. Visa.co.id. Retrieved November 24, from Visa Rise of the Digitally Engaged Consumer: <https://www.visa.co.id/about-visa/research/rise-of-the-digitally-engaged-consumer.html>

The Role of Emotional Intelligence on Leadership Emergence by Leadership Networking

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ABSTRACT: The role of a leader is not only found in those with authority to lead. A good leader also has other abilities that are not based on formal or informal authority. Despite the authority to lead, the results of empirical research show that individuals with high emotional skills play an essential role in leadership emergence. Furthermore, the direct influence of emotions on cognitive tasks may also be linked to emotional intelligence and leadership emergence because of several complementary mechanisms. Therefore, this research aims to determine the relationship between emotional intelligence and leadership emergence. This also examines the role of emotional intelligence on leadership emergence, which is different from previous research that emphasized emotional abilities. Leadership emergence is measured by the number of nominations received by individuals in the group and assessed using emotional intelligence, personal and social competence scales. This also analyzes leadership emergence based on the centrality of the degree of leadership networking through social network analysis. Moreover, emotional intelligence and leadership emergence were analyzed using the data collected from 81 respondents of an offshore company using correlation and regression. The results suggest the existence of a significant positive relationship between emotional intelligence and leadership emergence. These may also help companies better understand how emotional intelligence relates to leadership emergence.

1 INTRODUCTION

In general, leaders are people who have the power and authority to lead. However, the attributes of a good leader are also found in individuals who do not have formal or legal authority as leaders but have the potential to become it. This means that leadership emergence is essential for organizations. It defines a situation where individuals who do not have formal or informal authority to lead emerge into the leadership role of group members in group assignments. Furthermore, leadership emergence in a workgroup of an organization relies not only on the potential performance of group members but also on other important aspects of leadership. Several research also showed that emotional intelligence plays an important role in leadership, specifically in leadership emergence.

The two types of effective leadership behaviors are relationship-focused and task-focused leadership (Burke et al., 2006; Yukl, 2009). In each of these behaviors, a leadership style plays a significant role in a group. Relationship leaders provide leadership styles by enhancing the behaviors of each member of the group, thereby promoting excellent social interactions and improving collaboration among them. Meanwhile, task leaders provide leadership styles by organizing, planning, and enhancing group activities (Yukl, 2009). In the latter case, emotional intelligence, specifically emotional skills, abilities, and behavior's related to the two leadership styles mentioned above, are improved. Individuals with high emotional intelligence will show more leadership roles or leadership emergence in groups than their colleagues with lower emotional intelligence (Cote et al., 2010).

2 LITERATURE REVIEW

Individuals with high emotional intelligence have complementary mechanisms of emotional regulation, in particular, mechanisms that involve social perception necessary for teamwork. Furthermore, emotional intelligence is linked to leadership emergence in a group through its direct impact on emotions, cognitive activities, and how individuals systematically process information

(Loewenstein & Lerner, 2003). For example, individuals with high levels of optimism may wait until they are in a neutral state to process data about group assignments while feeling positive emotions and then give a piece of good advice when an opportunity presents itself (Lerner & Keltner, 2001). In other words, appropriate and helpful advice given by individuals with high emotional intelligence could positively influence group assignments and indicate the person's potential for leadership emergence. Furthermore, effectiveness in emotional management is another process in which emotional intelligence is linked to leadership emergence in small groups. Individuals can influence other members of their group by altering their emotional reactions to specific actions, such as change initiatives (George, 2000).

3 METHOD

The research hypothesis, which is based on reviews of previous literature and research works, is formulated as follows:

H1: Emotional intelligence relates positively to task leadership emergence.

Previous research related to emotional abilities and task leadership emergence found that there was a positive relationship between emotional abilities and task leadership emergence (Emery, 2012). In other words, the higher the emotional abilities or emotional intelligence, the higher the task leadership emergence.

H2: Emotional regulation relates positively to relationship leadership emergence.

Previous research related to emotional abilities and relationship leadership emergence by Emery (2012) stated that there is a positive relationship between emotional abilities and relationship leadership emergence. In other words, the higher the emotional abilities or emotional intelligence, the higher the relationship leadership emergence.

This empirical research was conducted among the entire workforce of four departments of an offshore company. A 6-Likert scale measures emotional intelligence, ranging from 'strongly disagree' to 'strongly agree'. In addition, the closed question from Emery (2012) is used to measure the participation level of participation of executives, and the data collected from 81 respondents were analyzed using UCINET and SPSS computer software.

4 RESULTS

Table 1. Correlation matrix

	1	2	3
Task Leadership Emergence	1		
Relationship Leadership Emergence	.862**	1	
Emotional Intelligence (Overall)	.441**	.709**	1

Based on the results of the hypothesis testing through the Pearson correlation analysis test, the influence of emotional intelligence on task leadership was proven to be significant (r -value = 0.441 and $p < 0.01$). This result indicates that emotional intelligence positively influences task leadership, meaning that the higher the emotional intelligence of employees, the higher the task leadership emergence in the employee. Furthermore, the R^2 value is 0.215, which means that the role of emotional intelligence on task leadership emergence is 21.5%. However, the residual effect is beyond the scope of this research.

Based on the results above, hypothesis 1 (H1) is accepted. The role of emotional intelligence in increasing relationship leadership emergence was found to be significant (r -value = 0.709 and $p < 0.01$). This result indicates that emotional intelligence has a positive influence on relationship leadership emergence. Therefore, the higher the employee's emotional intelligence, the higher the relationships leadership emergence in the employee will be. The R^2 value is 0.522, which means the role of emotional intelligence in developing relationship leadership emergence is 52.2%. However, the residual effect is beyond the scope of this research, hence, hypothesis 2 (H2) is also

accepted.

5 DISCUSSION

The results show that emotional intelligence positively influences leadership emergence. The higher an individual's emotional intelligence, the higher the probability of becoming an emergent leader. In this research, leadership emergence is divided into task and relationship leaders. Furthermore, the dynamics between cognitive abilities and the emergence of task leaders are in line with the theory of Cote et al. (2010), which suggests that emotions have a direct influence on cognitive activity. Humphrey (2002) also found that emotional intelligence can help task leaders achieve their goals. According to Yukl (2009), relationship leaders should be promoted and provided with adequate coaching and mentoring to help them develop their skills and competencies. This research proves that emotional intelligence positively influences relationship leadership emergence. This is also in line with Cote et al. (2010), which argued that by identifying and understanding other people's emotions, an individual gains sufficient knowledge about other group members' emotional states, attitudes, goals, and interests. Hence, it makes individuals with adequate emotional intelligence understand the emotions of other individuals, meaning they are able to help and support other individuals in achieving their goals.

5.1 Conclusion and Limitation

This research concluded that emotional intelligence has a positive influence on task leadership emergence, indicating the higher a person's emotional intelligence, the greater their task leadership emergence. Emotional intelligence also has a positive influence on relationship leadership emergence, indicating the higher a person's emotional intelligence, the greater the relationship leadership emergence in the individual. Based on the results of this study, the researcher proposes managerial implications that can be carried out by companies or organizations to increase emotional intelligence. Based on the results of this study, it shows that emotional intelligence plays a very important role in the emergence of task and relationship leadership in organizations. Emotional intelligence is a supporting factor for the emergence of emergent leaders. Providing facilities such as training or brainstorming related to increasing emotional intelligence is something that can be done by the management. Organizations also can hold training related to emotional intelligence, especially related to cognitive training and social interaction. Based on the results of this study, to create emergent leaders, it is necessary to have high emotional regulation, social awareness, social skills, and emotional receptivity in employees. Based on the results of this study, the dimensions of emotional regulation have a high enough positive correlation value to increase task and relationship leadership emergence. Emotional regulation in this study describes the management or control of emotions. This research shows that emotional intelligence plays a very important role in the emergence of relationship leadership in organizations. Organizations can hold training related to emotional intelligence, especially related to training that involves a lot of social activities such as communication and interaction. This can also be done by sharing sessions related to interpersonal relationships or related to assignments. This research has some limitations that may influence the overall results, including: There was no analysis of demographic data on leadership emergence which performed in this research, hence, this cannot depict the contribution between the two. Also this research is limited to measuring one of the indicator values of degree centrality in leadership emergence.

REFERENCES

- Burke, C. S., Stagl, K. C., Klein, C., Goodwin, G. F., Salas, E., & Halpin, S. M. (2006). What type of leadership behaviors are functional in teams? A meta-analysis. *The leadership quarterly*, 17(3), 288-307.
- Côté, S., Lopes, P. N., Salovey, P., & Miners, C. T. (2010). Emotional intelligence and leadership emergence in small groups. *The Leadership Quarterly*, 21(3), 496-508.
- Emery, C. (2012). Uncovering the role of emotional abilities in leadership emergence. A longitudinal analysis of leadership networks. *Social networks*, 34(4), 429-437.

- Humphrey, R. H. (2002). The many faces of emotional leadership. *The leadership quarterly*, 13(5), 493-504.
- George, J. M. (2000). Emotions and leadership: The role of emotional intelligence. *Human relations*, 53(8), 1027-1055.
- Lerner, J. S., & Keltner, D. (2001). Fear, anger, and risk. *Journal of personality and social psychology*, 81(1), 146.
- Loewenstein, G., & Lerner, J. S. (2003). The role of affect in decision making. *Oxford University Press*, 619-642.
- Yukl, G., 2009. *Leadership in organizations*, (7th ed). New Jersey : Prentice Hall.

Antecedent and Outcomes of Ad-Evoked Nostalgia on Facebook and Instagram among Indonesian Millennial Consumers

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ABSTRACT: Nostalgia evoked by advertising on social media is known to evoke positive consumer responses to the advertised brand. Nonetheless, it remains unclear how nostalgia can evoke positive responses on different social media types. The research employed the theory of nostalgia and consumer-brand relationship to examine the moderating effect of social media types on the effectiveness of nostalgia advertising. The data were collected from Facebook & Instagram millennial users and analyzed using structural equation modeling with multiple-group analysis. The results show the significant effect of the need to belong to nostalgia proneness, social media intensity to ad-evoked nostalgia, ad-evoked nostalgia to self-brand connection, and self-brand connection to social media engagement on Instagram and Facebook. Meanwhile, the moderating effect of social media types was significant between the need to belong and ad-evoked nostalgia, the need to belong and nostalgia proneness, nostalgia proneness and ad-evoked nostalgia, and nostalgia proneness and social media intensity.

1 INTRODUCTION

Digital advertising, particularly on social media, is one of the most widely used digital media for marketing (Kemp, 2021). Despite its popularity, digital advertising turns out to have a drawback, namely the existence of advertising clutter because too many ads are seen by consumers every day. This can trigger a negative response from consumers and reduce the effectiveness of advertising (Seyedghorban et al., 2016). One way to overcome this is by using advertising appeal that can generate positive responses towards the ad, previous research shows that nostalgia appeal on social media advertising can strengthen positive consumer responses toward the advertised brands (Youn, 2020). Especially for millennials who are prone to feeling nostalgic because they are facing quick social & technological changes and they are the last generation to experience childhood without technology such as smartphones or computers (Lubiński, 2020). Additionally, research by Youn (2020) also shows that there are several factors that can generate ad-evoked nostalgia on social media.

However, previous studies on nostalgia are not necessarily in accordance with consumer behavior in Indonesia because nostalgia is a cultural phenomenon that is relative to when and where a person is born and raised (Rana et al., 2021). In addition, previous research by Youn (2020) is only limited to Facebook as the advertising media. Meanwhile, in Indonesia, apart from Facebook, the most frequently used social media is Instagram (Kemp, 2021). Other than that, Facebook and Instagram also have different user demographics and different characteristics (Quesenberry, 2015). Thus, it is intriguing to examine how nostalgic ad can evoke positive consumer responses on Instagram compared to Facebook. This research aims to examine the antecedent and outcomes of ad-evoked nostalgia on Facebook and Instagram and the moderating effect of the social media type.

2 LITERATURE REVIEW

2.1 Facebook & Instagram

The largest users of Facebook in Indonesia are in the age group of 25 – 34 (33.1%), 18 – 24 (31.6%), and 35 – 44 (14.1%) (NapoleonCat, 2021). According to (Quesenberry, 2015), Facebook is a type of social media that belongs to the type of social networking site, which is a site that connects one user to another. Meanwhile, Instagram is a social media that belongs to the category

of the *media-sharing platform* (Quesenberry, 2015). In contrast to Facebook, Instagram users are dominated by a younger age group, which are 18-24 (37,6%), 25-34 (31,4%), and 13-17 (12.3%).

2.2 Antecedents of Ad-Evoked Nostalgia

Nostalgic advertising can offer solutions for people with a high need to belong and reconnect to memories and people in the past indirectly. According to (Seehusen et al., 2013), nostalgia can be a coping mechanism when a person feels the need to form and maintain contact with others or the need to belong. According to (Batcho, 1998), when someone is prone to nostalgia, they will tend to like activities related to other people or activities with social relationships. This is because people with high nostalgia proneness have strong desire to form and maintain relationships with other people. The intense use of social media can provide a feeling of interconnectedness between users and others (Youn, 2020). Lack of social connectedness can be a trigger for the emergence of nostalgia (Seehusen et al., 2013). When consumers use social media intensely to seek and maintain social relationships, they are more likely to experience nostalgia when they see advertisements on social media (Youn, 2020).

2.3 Outcomes of Ad-Evoked Nostalgia

Nostalgia evoked from advertising can increase the individual's relationship with the advertised brand because the feeling of nostalgia directly connects to the consumer (Youn, 2020). The presence of nostalgia in advertisements on social media can evoke an intense emotional bond between consumers and the advertised brand, thereby increasing self-brand connection (Merchant et al., 2013). Based on the research from Park et al. (2010) cited in (Youn, 2020), when there is a strong self-brand connection between consumers and the advertised brand, consumers tend to make the brand a part of themselves. For that purpose, consumers with high self-brand connections are more likely to want to spread the word about the brand through word-of-mouth and engage in engagement activities on social media such as likes, comments, and shares (Youn, 2020).

2.4 Conceptual Framework

The conceptual framework in this study is adapted from the previous research by Youn (2020). Unlike the previous framework that only examine nostalgic ad on Facebook, this research adds social media type as the moderating variable based on the difference in feature, user demographic, and behaviors in using the social media (Quesenberry, 2019).

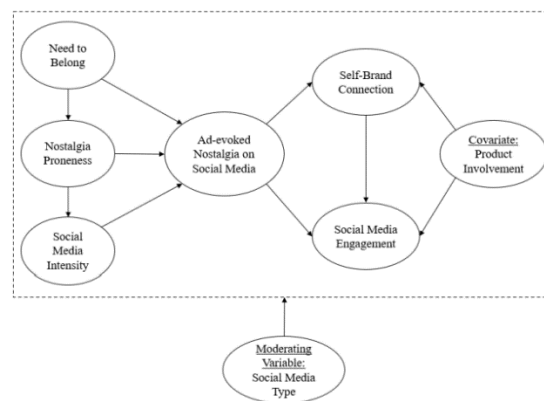


Figure 1. Conceptual Framework

3 RESEARCH METHOD

3.1 Sample & Procedure

Two hundred participants for each sample group (Facebook & Instagram) completed this research online. The data was collected through surveys with convenience sampling. The respondents of the research ranged from 21 to 37 of age or millennials. First, the participant filled out the

screening questions and they filled out the questionnaire. Participants in each sample group were exposed to a nostalgic ad embedded in Facebook mobile news feed or Instagram feed.

3.2 Measures & Statistical Analysis

The questionnaire measured the need to belong, nostalgia proneness, social media intensity, ad-evoked nostalgia, self-brand connection, social media engagement, and product involvement. The respondents were asked to answer all the measurement items using a 7-point Likert scale and 7-point semantic differential scale. The obtained data was analyzed using Structural Equation Modeling with AMOS to test the measurement model and structural model. Multiple-group analysis was used to examine the moderating effect of social media type.

4 RESULTS AND DISCUSSIONS

Table 1. Results

	Paths	Standardized Direct Effect		Metric Covariance	Direct Effect	P Value (Model Comparison)	Moderating Effect
		FB	IG				
H1	Need to Belong → Ad-Evoked Nostalgia	0.302*	-0.017	0.421	Partially Accepted	0.037	Accepted
H2	Need to Belong → Nostalgia Proneness	0.612*	0.300*	0.508	Accepted	0.021	Accepted
H3	Nostalgia Proneness → Ad-Evoked Nostalgia	0.110	0.360*	0.651	Partially Accepted	0.003	Accepted
H4	Nostalgia Proneness → Social Media Intensity	0.470*	0.025	0.241	Partially Accepted	0.001	Accepted
H5	Social Media Intensity → Ad-Evoked Nostalgia	0.460*	0.269*	0.397	Accepted	0.938	Rejected
H6	Ad-Evoked Nostalgia → Self-Brand Connection	0.520*	0.610*	0.999	Accepted	0.440	Rejected
H7	Self-Brand Connection → Social Media Engagement	0.454*	0.492*	1.490	Accepted	0.498	Rejected
H8	Ad-Evoked Nostalgia → Social Media Engagement	-0.066	-0.016	0.476	Rejected	0.476	Rejected

Nostalgia evoked by advertising was stronger in people who had high needs to belong on Facebook, nostalgia proneness on Instagram, and social media intensity on Facebook and Instagram. Therefore, advertisers could target nostalgia ads to audiences who often experienced nostalgia or like things related to the past on Instagram to obtain a more positive response. On Facebook, advertisers could deliver nostalgia ads to people who belonged to a community or group and use messages that emphasized social connections.

In this research, there was no significant effect between ad-evoked nostalgia and social media engagement, such as likes, comments, and following advertised brand social media accounts. This most likely occurred because the advertised brand was fictitious and not directly related to the consumer's past. Thus, consumers were not familiar with the brand and hesitant to engage in engagement activities. Although it could cause nostalgia, consumers did not want to engage directly with the advertised brand. Therefore, nostalgia advertising for new brands did not

necessarily encourage social media engagement. Advertisers could try to introduce the new brand first to a wide audience at the awareness stage, then enter the consideration stage after the audience became aware of the brand to obtain higher engagement.

5 CONCLUSIONS

This research tested a theoretical model to understand the antecedent and outcomes of nostalgia advertising on Facebook and Instagram. Other than that, the model also helped to figure out the moderating roles of social media type on the effect of each construct on the model. The use of Facebook and Instagram as marketing media had a significant difference to evoke nostalgia through advertising. This was shown by the difference of the effect of the need to belong, nostalgia proneness, and social media on Instagram and Facebook. Meanwhile, the result of this study does not show the direct effect of ad-evoked nostalgia to social media engagement.

REFERENCES

- Batcho, K. I. (1998). Personal nostalgia, world view, memory, and emotionality. *Perceptual and Motor Skills*, 87(2), 411–432. <https://doi.org/10.2466/pms.1998.87.2.411>
- Kemp, S. (2021). *Digital 2021: Indonesia*. DataReportal. <https://datareportal.com/reports/digital-2021-indonesia>
- Lubiński, K. (2020). The Study of Nostalgia-Oriented Strategy Aimed at Millennials on The Example of The Lego Group. *Journal of Intercultural Management*, 12(2), 82–105. <https://doi.org/10.2478/joim-2020-0039>
- Merchant, A., LaTou, K., Ford, J. B., & LaTour, M. S. (2013). How strong is the pull of the past? Measuring personal nostalgia evoked by advertising. *Journal of Advertising Research*, 53(2), 150–165. <https://doi.org/10.2501/JAR-53-2-150-165>
- NapoleonCat. (2021). *Facebook users in Indonesia—November 2021*. NapoleonCat. <https://napoleontcat.com/stats/facebook-users-in-indonesia/2021/11/>
- Quesenberry, K. A. (2015). *Social Media Strategy: Marketing and Advertising in the Consumer Revolution*. Rowman & Littlefield Publishers.
- Quesenberry, K. A. (2019). *Social media strategy: Marketing, advertising, and public relations in the consumer revolution* (Second edition). Rowman & Littlefield.
- Rana, S., Raut, S. K., Prashar, S., & Hamid, A. B. A. (2021). Promoting through Consumer Nostalgia: A Conceptual Framework and Future Research Agenda. *Journal of Promotion Management*, 27(2), 211–249. <https://doi.org/10.1080/10496491.2020.1829773>
- Seehusen, J., Cordaro, F., Wildschut, T., Sedikides, C., Routledge, C., Blackhart, G. C., Epstude, K., & Vingerhoets, A. J. J. M. (2013). Individual differences in nostalgia proneness: The integrating role of the need to belong. *Personality and Individual Differences*, 55(8), 904–908. <https://doi.org/10.1016/j.paid.2013.07.020>
- Seyedghorban, Z., Tahernejad, H., & Matanda, M. J. (2016). Reinquiry into Advertising Avoidance on the Internet: A Conceptual Replication and Extension. *Journal of Advertising*, 45(1), 120–129. <https://doi.org/10.1080/00913367.2015.1085819>
- Youn, S. (2020). A trip down memory lane: Antecedents and outcomes of ad-evoked nostalgia on Facebook. *Journal of Consumer Behaviour*, 19(4), 314–326. <https://doi.org/10.1002/cb.1808>
- Zhou, X., Sedikides, C., Wildschut, T., & Gao, D.-G. (2008). Counteracting Loneliness: On the Restorative Function of Nostalgia. *Psychological Science*, 19(10), 1023–1029. <https://doi.org/10.1111/j.1467-9280.2008.02194.x>

Determinant of Profitability Infrastructure Listed Firm in Indonesian Stock Exchange

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ABSTRACT: Global infrastructure has become an essential issue in many countries because it plays a critical role in their development. The challenge of infrastructural development has become more pertinent because the impulses for infrastructural needs must support socio-economic development, including Indonesia. With the emergence of the National Strategic Project (PSN), the Indonesian government is making efforts to increase economic growth by expanding its infrastructure. However, infrastructure companies have experienced a decline in profitability growth since 2011. The increased development in the infrastructure sector does not necessarily increase the profitability of companies in this sector because, since 2018, infrastructure companies have experienced a drastic and continuous decline in profitability. Therefore, this research aims to empirically investigate the determinants of profitability of infrastructural companies in Indonesia in order to improve their profitability. Quantitative research is utilized as a part of the design using the Generalized Least Square Regression method for 22 infrastructural companies between 2011-2020. The analysis is divided into two parts, which are 2011-2015, and 2016-2020, in order to ascertain the impact of the 2016 National Strategic Project (PSN) on the company's profitability. The results show a strong and positive relationship between liquidity and profitability. Moreover, before the National Strategic Project period, firm size, liquidity, and growth had a significant relationship with profitability.

1 INTRODUCTION

Global infrastructure is a significant problem in many industrialized and developing countries. Its challenges are becoming increasingly frightening as it stimulates the demand for infrastructure to support social and economic development (McKinsey, 2013). These challenges also create gaps alongside an urgent need to fill these gaps (OECD, 2014). According to the World Economic Forum of 2018-2019, Indonesia was ranked fifth in the infrastructure competitiveness of ASEAN countries. However, on closer inspection, the availability of Indonesia's existing infrastructure has dramatically decreased since the 1997-1998 economic crisis, which is reflected in the budget for infrastructure as it was reduced from 9% of GDP in the mid-1990s to 2% in 2001 (Salim & Negara, 2018).

In order for Indonesia to be on par with industrialized nations, it is expected to invest IDR 4,796.2 trillion for infrastructure between 2015 and 2019 (Bappenas, 2018). Furthermore, the government under the administration of President Joko Widodo made efforts to accelerate economic growth through infrastructural development by initiating the National Strategic Project (PSN) in early 2016. The PSN is considered strategic because some of its objectives are to increase economic growth, ensure equitable development, and bring prosperity to people. In an effort to coordinate the policies of PSN, the government inaugurated the Committee for Acceleration of Priority Infrastructure Delivery, popularly called the KPPIP, to expedite the development of priority infrastructure. The committee made a tremendous impact with several infrastructural projects that have benefited people of Indonesia as the construction sector is currently included amongst the five sectors that makes the most significant contribution to the GDP.

However, amid increasing development in the infrastructure sector, the country's profitability has significantly decreased compared to the previous year. This decrease is caused by several factors, such as financing infrastructure barriers that affect the sustainability of projects investments, access to resources, and government regulations that create liquidity problems.

Therefore, this research aims to examine the determinants of factors that affect the profitability of infrastructure companies in Indonesia and compare the determinants of profitability before and after implementing the PSN. It is also expected to provide the best guidelines for evaluating the performance of infrastructural companies and subsequently develop the right strategies for ensuring company sustainability.

2 LITERATURE REVIEW

Profitability is the company's ability to generate revenue, which will then be used as the basis for predicting its ability to generate profits in the near future (Hammes et al., 2005). Similarly, (Brigham & Houston, 2018) stated that profitability results from the effectiveness of several policies and decisions made by the company. Based on experts' opinions, it is concluded that the profitability of the company's operational activities is an integral part of the related policies and decisions that ultimately indicate its current conditions and becomes a necessary basis for its growth. The study also uses three measurements for profitability, i.e. return on equity (ROE), return on assets (ROA) and earning per share (EPS), which can produce more realistic results that are beneficial to stakeholders of these firms, specifically, creditors, investors, management and shareholders. ROA will be used as a profitability ratio in this study because ROA can describe the company's position in generating profitability, besides that ROE is also used as a profitability ratio because ROE can see the company's ability to generate profitability from equity (Kwatih and Asiamah, 2020). There is also a company's profitability ratio according to (Lim & Rokhim, 2020) which can be assessed, one of which is by using earnings per share (EPS) that a firm's performance assessment expressed through economic value added, ROE, operating profit margin (OPM) and EPS.

Furthermore, according to RBV (Resource-Based view) theory, profitability is closely related to its size due to the benefits of economies of scale, which reduces costs and enhances profitability. A positive and significant relationship exists between fixed assets and large amounts of debt (Kumar et al., 2021). Furthermore, companies with substantial fixed assets use the ease access of debt or financial leverage to obtain capital for investments and increase their profitability. The research conducted by (Mugetha Irungu et al., 2018) in Nairobi found that tangibility had a positive and significant effect on profitability. Moreover, company may also increase its profitability with increased liquidity. The higher the liquidity, represented by the current ratio, the greater its ability to pay its bills and fulfill its short-term obligations. Therefore, this ratio is attractive to short-term creditors because companies often cooperate with short-term lenders such as banks (Ross et al., 2017). Also, a higher current ratio will make it easier for companies to get loans if they make adequate investments, thereby increasing profitability. (Lim & Rokhim, 2020) research on pharmaceutical companies in Indonesia found that liquidity and profitability have a positive relationship. Following the RBV theory, the growth of companies has improved access to resources, which enhances profitability. The research of (Bolarinwa et al., 2021) also supported a positive association between growth and profitability.

3 RESEACH METHODS

This research used the purposive sampling method because the sample has specific criteria. The sample selection criteria are as follows:

- a. Infrastructure companies listed on the Indonesia Stock Exchange between 2011 to 2020.
- b. Companies classified as Infrastructure companies based on the Industrial Classification (IDX-IC) of listed companies in Indonesia.
- c. Companies with complete financial data during the research period.

Based on these criteria, only 22 out of the 56 listed infrastructure companies were selected from the infrastructure sector as a sample. The secondary data was extracted from published financial reports obtained from www.idx.co.id and the company's website.

4 RESULT

Before performing regression analysis, it is essential to consider multicollinearity, normality, heteroskedasticity, and autocorrelation. Furthermore, the Breusch Pagan Godfrey/Cook-Weisberg test was used to determine the heteroscedasticity, indicating the presence of heteroscedasticity based on the decision-making criteria. According to (Gurajati et al., 2017), the Generalized Least Square (GLS) technique properly treats parameters in linear regression. The results suggest that the chi-square probability is less than 0.05. The outcome of the regression analysis is shown below.

Table 1. Regression result of determinants profitability

	2011-2015			2016-2020		
Variabel	ROA Model 1	ROE Model 2	EPS Model 3	ROA Model 1	ROE Model 2	EPS Model 3
LTA	0,076	0,156	47,482	0,225***	0,051**	71,098***
TANG	0,066	0,098	252,537	0,049	0,211	56,442
CR	0,155*	0,338*	20,975	0,535***	0,168***	138,821***
AG	0,008	0,111	133,954	0,047*	0,219**	216,086*
TATO	0,083	0,238**	565,366	0,089**	0,298**	184,895
LEV		0,234*			0,042**	

*p < 0,05; ** p < 0,01; *** p < 0,1

The model in Table 1 examines the relationship between four independent and one control variables, with ROA, ROE, and EPS serving as dependent variables. For all estimation models, the size is positively associated with profitability between 2016 to 2020, at a significance level of 5%. However, in the earlier periods, the size was positive but had no significant impact on profitability. Therefore, the first hypothesis is rejected. This result is in line with (Abeyrathna & Abeyrathna, 2019), which suggested that firm size has little effect on the profitability of listed manufacturing companies of Sri Lanka.

Results for the second variable show a positive but not very significant relationship between tangibility and profitability. Furthermore, there are many discrepancies on how tangibility affects profitability in different industries and countries. For example, a construction company in Vietnam found no clear link between tangibility and profitability (Le et al., 2020). In other research, Pakistani companies that manufacture cars, cement, and sugar are not profitable because they are not tangible (Nazir et al., 2021). Accordingly, it is concluded that the second hypothesis is rejected. Though this outcome does not have a significant effect, the proportion of these assets is crucial to the operation of any construction company. According to (Fapohunda, 2013), when company has many fixed assets, it will get a lower interest rate from the bank when they borrow money. This reduced interest rate invariably has a positive impact on the efficiency and income of the company.

Based on the results on the third variable, it was revealed that the current ratio is significant for all the models within the 2011-2015 and 2016-2020 periods which at 5%, excluding the third model of the first period. The results show the importance of managing a high level of current assets and a low level of liabilities to improve profitability. This is also in accordance with (Egbunike & Okerekeoti, 2018), which found that liquidity and profitability have a significant and positive relationship with the volume of infrastructure in India. Therefore, the third hypothesis is accepted.

Results for the fourth variable also show a positive and significant relationship between growth and profitability. However, on implementing PSN, a significant positive effect at 5% was observed but before implementing PSN, the variable show a positive but not significant relation with profitability. Therefore, the fourth hypothesis is rejected. Similar results of (Jolly Cyril &

Singla, 2020) show the use of asset growth in measuring company growth in real estate, construction, and infrastructure industries. It also shows that the growth rate of assets in the current and previous year had no impact on profitability.

5 CONCLUSION

This research aims to determine the internal profitability factor of infrastructure companies in Indonesia. Four independent variables, namely firm size, tangibility, liquidity, and company growth, were empirically examined for their relationships with profitability. The results show a strong positive relationship with size. However, tangibility does not establish a significant relationship between ROA, ROE, and EPS, while its increase is proportional to the rise in the current ratio, which has a strong positive relationship with those three variables. Asset growth also has a strong positive relationship with ROA, ROE, and EPS.

The results of this research will benefit internal users such as managers, shareholders, and employees because it reinforces their knowledge. They are better informed about the factors affecting the profitability of the companies after implementing the National Strategic Project of the Indonesian government in 2016. Therefore, companies should concentrate more on the aspects that enhance their profitability.

The research reaffirms the importance of having good asset management in relevance to the significance of size and growth for the infrastructure company in Indonesia. Furthermore, given the importance of liquidity factors, it is recommended to improve the receivable turnover rate to enhance profitability. This also suggests that further research should include more elements or replace proxy variables with other parameters as well as comparative studies of infrastructure companies in various countries to find out whether the determinants of profitability play any significant role.

REFERENCE

- Brigham, E. F., & Houston, J. F. (2018). *Fundamentals of financial management*.
- Egbunike, C. F., & Okerekeoti, C. U. (2018). Macroeconomic factors, firm characteristics and financial performance: A study of selected manufacturing firms in Nigeria. *Asian Journal of Accounting Research*.
- Fapohunda, T. (2013). Reducing Unemployment through the Informal Sector in Nigeria. In *International Journal of Management Sciences* (Vol. 1, Issue 7). <http://www.rassweb.com>
- Gurajati, D., Porter, D. C., & Gunasekar, S. (2017). *Basic Econometrics, Fifth Edition*. The McGraw-Hill Companies,.
- Hammes, K., & Chen, Y. (2005). *Performance of European Real Estate Companies An empirical comparison*.
- Jolly Cyril, E., & Singla, H. K. (2020). Comparative analysis of profitability of real estate, industrial construction and infrastructure firms: evidence from India. *Journal of Financial Management of Property and Construction*, 25(2), 273–291. <https://doi.org/10.1108/JFMPC-08-2019-0069>
- Kumar, A., Srivastava, V., Tabash, M. I., & Chawda, D. (2021). Profitability determinants of infrastructure public private partnerships (PPPs): empirical evidence from Indian data. *Journal of Financial Management of Property and Construction*.
- Le, T. N., Mai, V. A., & Nguyen, V. C. (2020). Determinants of profitability: Evidence from construction companies listed on Vietnam Securities Market. *Management Science Letters*.
- Lim, H., & Rokhim, R. (2020). Factors affecting profitability of pharmaceutical company: an Indonesian evidence. *Journal of Economic Studies*.
- McKinsey. (2013). *Infrastructure productivity: How to save \$1 trillion a year McKinsey Global Institute McKinsey Infrastructure Practice*. www.mckinsey.com/mgi.
- Mugetha Irungu, A., Muturi, W., Nasieku, T., & Ngumi, P. (2018). Effect of Asset Tangibility on Financial Performance of Listed Firms in the Nairobi Securities Exchange. *Stratford Peer Reviewed Journals and Book Publishing Journal of Finance & Accounting*, 2, 2616–4965.
- Nazir, A., Azam, M., & Khalid, M. U. (2021). Debt financing and firm performance: empirical evidence from the Pakistan Stock Exchange. *Asian Journal of Accounting Research*.
- OECD. (2014). *Private Financing and Government Support to Promote Long-term Investments in Infrastructure*.
- Ross, S. A., Westerfield, R. W., Jaffe, J., & Jordan, B. D. (2017). *Corporate Finance: Vol. TWELFTH EDITION*. The McGraw-Hill Education Series in Finance, Insurance, and Real Estate.
- Salim, W., & Negara, S. D. (2018). Infrastructure Development Under the Jokowi Administration Progress, Challenges and Policies. *Journal of Southeast Asian Economies*.

An Analysis of Shared Leadership and Its Effects on Team Creativity using Leadership Networks

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ABSTRACT: In response to today's business challenges, especially the enormous turmoil of the COVID-19 pandemic, creativity is considered an imperative component to implement sustainable innovation. Creativity is also necessary to solve external challenges in the digital era, as it is today. It is exceptionally true for growing start-ups that rely on technology and creative performance as their core business. Hence, many organizations are now interested in forming shared leadership that involves all members working together and collaborating to enhance the level of creativity in a team. This research aims to investigate the influence of shared leadership on team creativity. Social network analysis was adopted to measure shared leadership using a degree of density from a leadership network. Furthermore, shared leadership and team creativity were analyzed by applying Pearson's correlation. The data were collected from 65 members of nine teams in a technology-based start-up to test our hypothesis. The finding revealed a significant positive correlation between the degree of shared leadership and team creativity. This research suggests that developing shared leadership is an essential factor in formulating team creativity in organizations.

1 INTRODUCTION

In response to today's business challenges, especially the enormous turmoil of the COVID-19 pandemics, creativity is considered an imperative component that every organization must have to implement sustainable innovation. Especially for start-ups, creativity is considered a prerequisite of innovation which is often the only source of competitive advantage for start-ups with limited resources. It allows them to stand out from the crowd of established companies and survive in an increasingly complex and competitive environment (Grimm et al., 2005). It will be difficult for organizations to produce strategies and innovations if the leaders in the organization must carry the burden on their own because an individual leader cannot have all the necessary skills and abilities to meet the demands of creativity (Hunter et al., 2017).

Organizations require formal and informal leaders who can solve problems by interacting and sharing knowledge with their teams. Shared leadership is considered appropriate in responding to these needs. Hooker & Csikszentmihalyi (2003) added that shared leadership is appropriate in today's organizations because high-performing teams rely on diverse knowledge and thus demand a participatory approach to decision-making. In shared leadership, every individual works together and collaborates in a team. Furthermore, collaborating teams will enhance creativity in improving the organization. This research focuses on discovering the correlation between shared leadership and team creativity by implementing a leadership network to analyze the density in shared leadership by adopting a social network analysis approach.

2 LITERATURE REVIEW

Shared leadership is a social interaction process that engages each team member to simultaneously perform leading and following roles to attain team objectives successfully (Chiu et al., 2016). This philosophy contrasts with a centralized structure in which only one person performs in the leader role. Shared leadership has potential implications for stimulating creativity in teams by building a circumstance where the reciprocal influence of all members is welcomed and encouraged (Carson et al., 2007). Team creativity usually leans on each other's acquaintance and perspectives, such as prosocial virtues and intentions driven by genuine recognition and appreciation from team members. Given the importance of creativity in teams, distributed

responsibility constructs conditions where team members tend to put extra effort into developing creative ideas due to the grown responsibility for team goals and the ownership of team functions and performance (Carson et al., 2007).

Shared leadership is a form of distributed leadership (Carson et al., 2007). One of the tools in developing human resources to distribute leadership collectively is a leadership network. A leadership network can be defined as an interconnected process that emerges from mutual influence between team members and can be conceptualized as a property of the whole system (Carson et al., 2007). In this sense, shared leadership can be observed based on the density form of the whole leadership portrayed by team members as sensed by others (Lee et al., 2015). Density is the numeral of links that exist in a network divided by the maximum possible numeral of links that could exist in the network (Hoppe & Reinelt, 2010). When more team members provide leadership to their peers, the density of this type of network increases and team creativity.

3 METHOD

Previous research by Lee et al. (2015) used network density to measure shared leadership by studying its effect on knowledge sharing and its subsequent effect on team creativity. A high level of knowledge sharing will result in more quantity and variety of ideas and opinions. If the density level is low in the shared leadership network, there are fewer relationships among team members, and this hinders knowledge sharing and acts as an obstacle to team creativity (Lyndon et al., 2019). Based on this, the researcher determined the hypothesis of this research.

H1: Density in shared leadership is positively correlated with team creativity

This empirical research was conducted with a population of employees in particular departments of a technology-based start-up. This study used a social network method to calculate shared leadership (Carson et al., 2007), which measured a leadership network's degree of density. Each team member was questioned to rank every other member using the item "To what degree do you rely on this member for leadership?". This study used a 4-point Likert scale from 1 = "To a little extent" to 4 = "To a very great extent". Meanwhile, team creativity measurement adopted nine items created by Jiang & Zhang (2014) with a 6-point Likert scale from 1 = "Strongly Disagree" to 6 = "Strongly Agree". The data were gathered from 65 respondents of nine teams representing different divisions. The collected data were analyzed using UCINET and SPSS software.

4 RESULTS

The results show that the *r*-value of density as the variable with team creativity is positive 0.871 with a significance value of 0.01. Thus, it can be concluded that there is a significant positive correlation between density in shared leadership and team creativity.

Table 1. Correlation Matrix

	1	2
Density in Shared Leadership	1	
Team Creativity	.871**	1

Based on this analysis, hypothesis 1 is accepted.

5 DISCUSSION

This study seeks to explore the association between shared leadership and team creativity, where the value of density represents the role of shared leadership. It confirmed a positive connection between density in shared leadership and team creativity. The higher the density value, the higher the team creativity would be. The measurement of shared leadership and team creativity in this research focused on analyzing the relationship between actors in the team, not actors as individuals with their attributes. Therefore, density was considered appropriate to describe the role of shared leadership. The density in the shared leadership network defined the rate of actual

leadership links compared to all potential leadership links among team members (Carson et al., 2007). There would be more leadership ties emerging when more group members performed leadership responsibilities, increasing the network density. A shared leadership network with high density, where more team members fulfilled leadership conducts, would encourage sharing knowledge and ideas between team members, increasing creativity in the team. In contrast, low-density levels in shared leadership networks with distant relationships among team members hindered knowledge sharing and acted as an obstacle to creativity (Ali et al., 2020).

6 PRACTICAL IMPLICATION

This study explored the effect of shared leadership on team creativity. Based on the outcome of this research, practical implications have been compiled, especially for technology-based start-ups. In this study, it was found that shared leadership had a positive association with team creativity through the size of the leadership network. Therefore, companies need to promote the degree of shared leadership within the company or team by increasing interaction between team members, which will increase the network density. The high network density will increase the level of creativity in the team, resulting in the overall creativity of the company's outcomes.

7 CONCLUSION AND LIMITATION

Based on the association analysis between shared leadership and team creativity using density as the operationalization of shared leadership measurement, several conclusions were obtained in relation to the results. Density in shared leadership has a positive association with team creativity. It can be summed up that the higher the density, the higher the team creativity level will be. This research cannot be separated from limitations. This study has not explored further measurements in leadership networks other than density, such as centrality, network strength or network efficiency which may also correlate to team creativity.

REFERENCES

- Ali, A., Wang, H., & Johnson, R. E. (2020). Empirical analysis of shared leadership promotion and team creativity: An adaptive leadership perspective. *Journal of Organizational Behavior*, 41(5), 405–423. <https://doi.org/10.1002/job.2437>
- Carson, J. B., Tesluk, P. E., & Marrone, J. A. (2007). Shared leadership in teams: An investigation of antecedent conditions and performance. *Academy of Management Journal*, 50(5), 1217–1234. <https://doi.org/10.2307/20159921>
- Chiu, C.-Y. (Chad), Owens, B. P., & Tesluk, P. E. (2016). Initiating and utilizing shared leadership in teams: The role of leader humility, team proactive personality, and team performance capability. *Journal of Applied Psychology*, 101(12), 1705–1720. <https://doi.org/10.1037/apl0000159>
- Grimm, C. M., Lee, H., & Smith, K. G. (2005). *Strategy as action: Competitive dynamics and competitive advantage*. Oxford University Press. <https://econpapers.repec.org/RePEc:oxp:obooks:9780195161441>
- Hooker, C., & Csikszentmihalyi, M. (2003). Flow, creativity, and shared leadership: Rethinking the motivation and structuring of knowledge work. In C. L. Pearce & J. A. Conger (Eds.), *Shared leadership: Reframing the hows and whys of leadership* (pp. 217–234). SAGE Publications, Inc. <https://doi.org/10.4135/9781452229539.n10>
- Hoppe, B., & Reinelt, C. (2010). Social network analysis and the evaluation of leadership networks. *The Leadership Quarterly*, 21(4), 600–619. <https://doi.org/10.1016/j.leaqua.2010.06.004>
- Hunter, S. T., Cushenbery, L. D., & Jayne, B. (2017). Why dual leaders will drive innovation: Resolving the exploration and exploitation dilemma with a conservation of resources solution. *Journal of Organizational Behavior*, 38(8), 1183–1195. <https://doi.org/10.1002/job.2195>
- Jiang, H., & Zhang, Q. pu. (2014). Development and validation of team creativity measures: A complex systems perspective. *Creativity and Innovation Management*, 23(3), 264–275. <https://doi.org/10.1111/caim.12078>

- Lee, D. S., Lee, K. C., Seo, Y. W., & Choi, D. Y. (2015). An analysis of shared leadership, diversity, and team creativity in an e-learning environment. *Computers in Human Behavior*, 42, 47–56. <https://doi.org/10.1016/j.chb.2013.10.064>
- Lyndon, S., & Pandey, A. (2019). Shared leadership in entrepreneurial teams: a qualitative study. *Journal of Indian Business Research*, 12(3), 427-441. <https://doi.org/10.1108/JIBR-06-2019-0196>